

## Table of Contents

Acknowledgements .....	10
Foreword .....	12
<b>1 Introduction</b>	<b>15</b>
About this Book .....	21
<i>Overview Map</i> .....	25
<i>Reference: Table of Canyons</i> .....	26
<b>2 Dangers</b>	<b>31</b>
<b>3 Grand Canyon Overview</b>	<b>53</b>
Geologic History .....	54
Natural History .....	59
Human History .....	63
Climate Overview .....	71
Permits, Fees and Regulations .....	74
Navajo Nation .....	83
Havasupai Tribe .....	86
<b>4 Techniques</b>	<b>87</b>
Packrafting .....	88
Canyon Techniques .....	94
<b>5 Gear and Etiquette</b>	<b>107</b>
Gear .....	108
Etiquette .....	121
<b>6 Eastern Grand Canyon</b>	<b>125</b>
1: Water Holes Canyon .....	131
2: Paria Canyon .....	135
3: Upper Marble Canyon Tributaries - 1 .....	141
4: Upper Marble Canyon Tributaries - 2 .....	144
5: Badger Canyon .....	148
6: Jackass Creek .....	153
7: Soap Creek .....	157
8: Salt Water Wash and 12.2-Mile Wash .....	161
9: Tanner Wash .....	166
10: Hot Na Na (aka: Hanaa Ninadzidzahl) Wash .....	169
11: Rider Canyon (aka: House Rock Wash) .....	173
12: North Canyon .....	177
13: 29-Mile Canyon (aka: Shinumo Wash) .....	183

14: South and Bedrock Canyons.....	187
15: Nautiloid Canyon, 35-Mile Canyon and 36-Mile Canyon .....	191
16: 36.7-Mile Canyon.....	197
17: Tatahatso Wash .....	203
18: Buck Farm Canyon.....	209
19: Tatahoysa Wash .....	215
20: Saddle Canyon.....	219
21: Little Colorado River Gorge Tributaries.....	225
22: Little Colorado River Gorge.....	238

## 7 Central Grand Canyon

**243**

23: Lava and Carbon Canyons.....	249
24: Papago Creek.....	253
25: Hance Creek .....	259
26: Cottonwood Creek.....	263
27: Vishnu Creek .....	267
28: Grapevine Creek .....	271
29: Clear Creek Loop.....	275
30: Ribbon Falls.....	279
31: Cremation Creek, Lonetree Canyon and Boulder Creek.....	283
32: Phantom Creek .....	289
33: Pipe Creek.....	295
34: Garden Creek.....	299
35: Horn Creek .....	303
36: Trinity Creek.....	307
37: Salt Creek .....	313
38: Monument Creek .....	317
39: Hermit Creek .....	321
40: Big Spring Canyon .....	325
41: Muav Canyon (aka: White Creek).....	331
42: Royal Arch Creek .....	335
43: Blacktail Canyon .....	341
44: Crazy Jug, Saddle and Stina Canyons .....	345
45: Stone Creek.....	353
46: Tapeats Cave Canyon .....	359
47: Bonita Creek .....	363
48: Deer Creek (upper).....	367
49: Deer Creek (lower).....	375
50: Cranberry and Fishtail Canyons .....	381



## 8 Western Grand Canyon 389

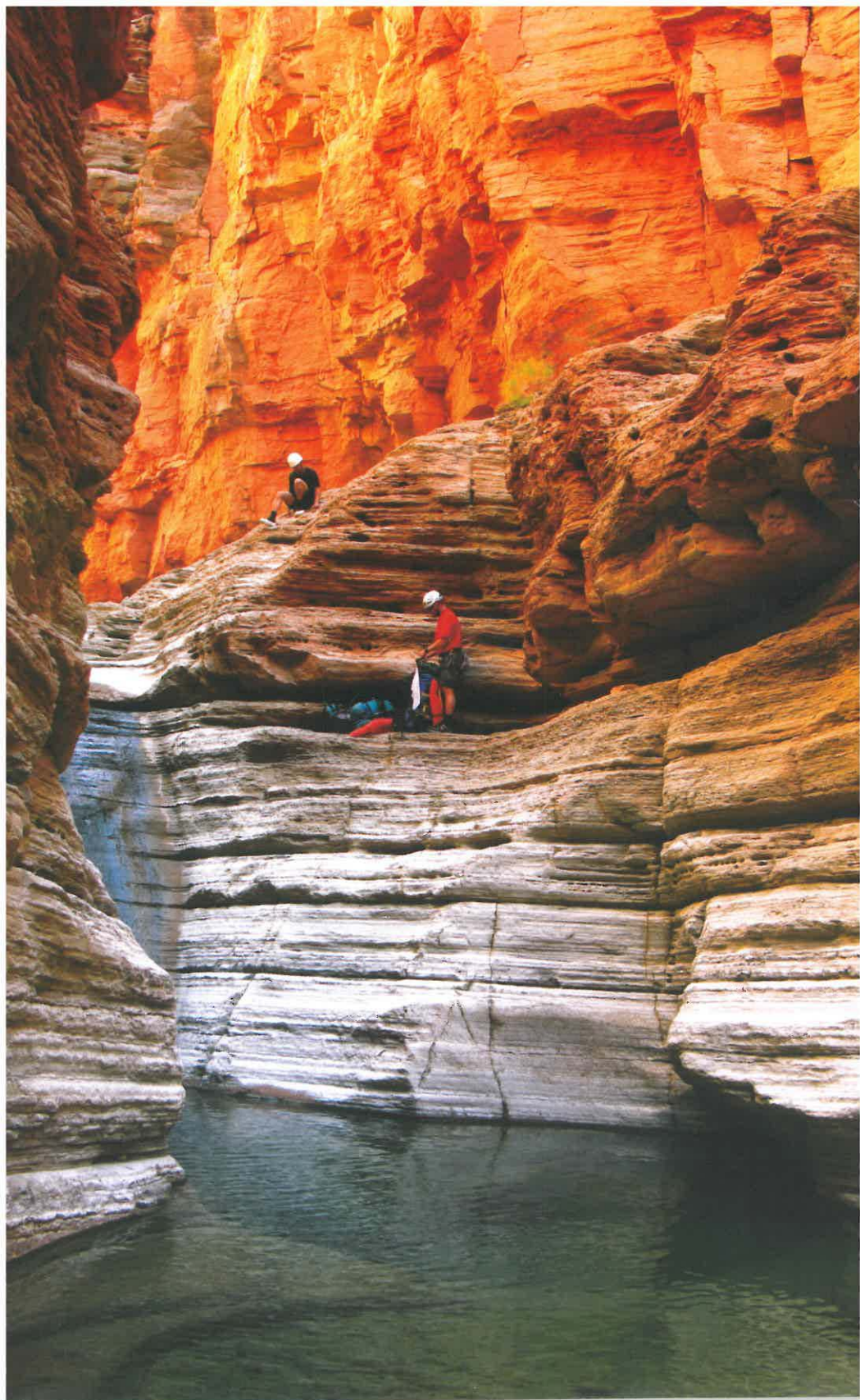
51: Kanab Creek .....	393
52: Kanab Creek - Eastern Tributaries.....	401
53: Kanab Creek - Western Tributaries.....	411
54: Olo Canyon.....	419
55: Matkatamiba and Panameta Canyons.....	423
56: 150-Mile and North Spring Canyons.....	429
57: Havasu Creek.....	437
58: Cork Spring Canyon .....	441
59: Pocket Point Canyon .....	447
60: Tuckup Canyon and Tributaries.....	453
61: Willow and Fern Glen Canyons.....	461
62: Cove Canyon .....	469
63: Surprise Canyon Tributaries .....	477
64: Burnt and Tincanebitts Canyons.....	483
Appendix A: Grand Canyon and Canyoneering Resources .....	489
Appendix B: ACA Canyon Rating System .....	492
Index .....	494
About the Author.....	500



*Kaibab Plateau in winter*

# GRAND CANYONEERING

*Exploring the Rugged Gorges  
and Secret Slots of the Grand Canyon*



# GRAND CANYONEERING

Todd Martin

**Todd's Desert Hiking Guide**

*Phoenix, Arizona*

*[www.ToddsHikingGuide.com](http://www.ToddsHikingGuide.com)*



The author assumes no responsibility for accidents, injury or death incurred as a result of the use or misuse of information contained in this book. Canyoneering contains inherent risks that no amount of care, caution or expertise can eliminate. No guidebook, including this one, can accurately describe every hazard that might be encountered and is no substitute for topographic maps, route-finding skill, physical condition, proper equipment, technical skills or good judgment. Every canyoneer must assume responsibility for his or her own safety and survival.

Canyons are dynamic and ever changing environments. Rockfalls and flash floods can change the character of a canyon overnight. New obstacles can form, old anchors can be washed away, water levels and temperatures can change with each rainstorm or added day of drought. There is absolutely no guarantee that the canyon will reflect the conditions as described in this book. In addition, as with any human endeavor, errors can always occur. If you find any discrepancies or errors in the information presented in this book, please contact the publisher.

Errata will be posted at <http://www.ToddsHikingGuide.com/GrandCanyoneering>

Published by Todd's Desert Hiking Guide  
Todd's Hiking Guide, LLC  
Phoenix, AZ  
[www.ToddsHikingGuide.com](http://www.ToddsHikingGuide.com)

© 2011 by Todd Martin. All Rights Reserved.

First edition 2011

No part of this book may be reproduced in any form, except for brief reviews, without the written permission of the publisher.

Cover design: Todd Martin and Krause Creative  
Book design and layout: Sarah Durkee  
Maps: Todd Martin  
Illustrations: Sara Desalme  
Edited by: Stephanie Martin, Rich Rudow, Lucas Delezene  
All photos by the author, unless otherwise noted.

Cover photo: Rich Rudow in Garden Creek, photo by Todd Martin  
Back cover photos by Todd Martin (from left to right):

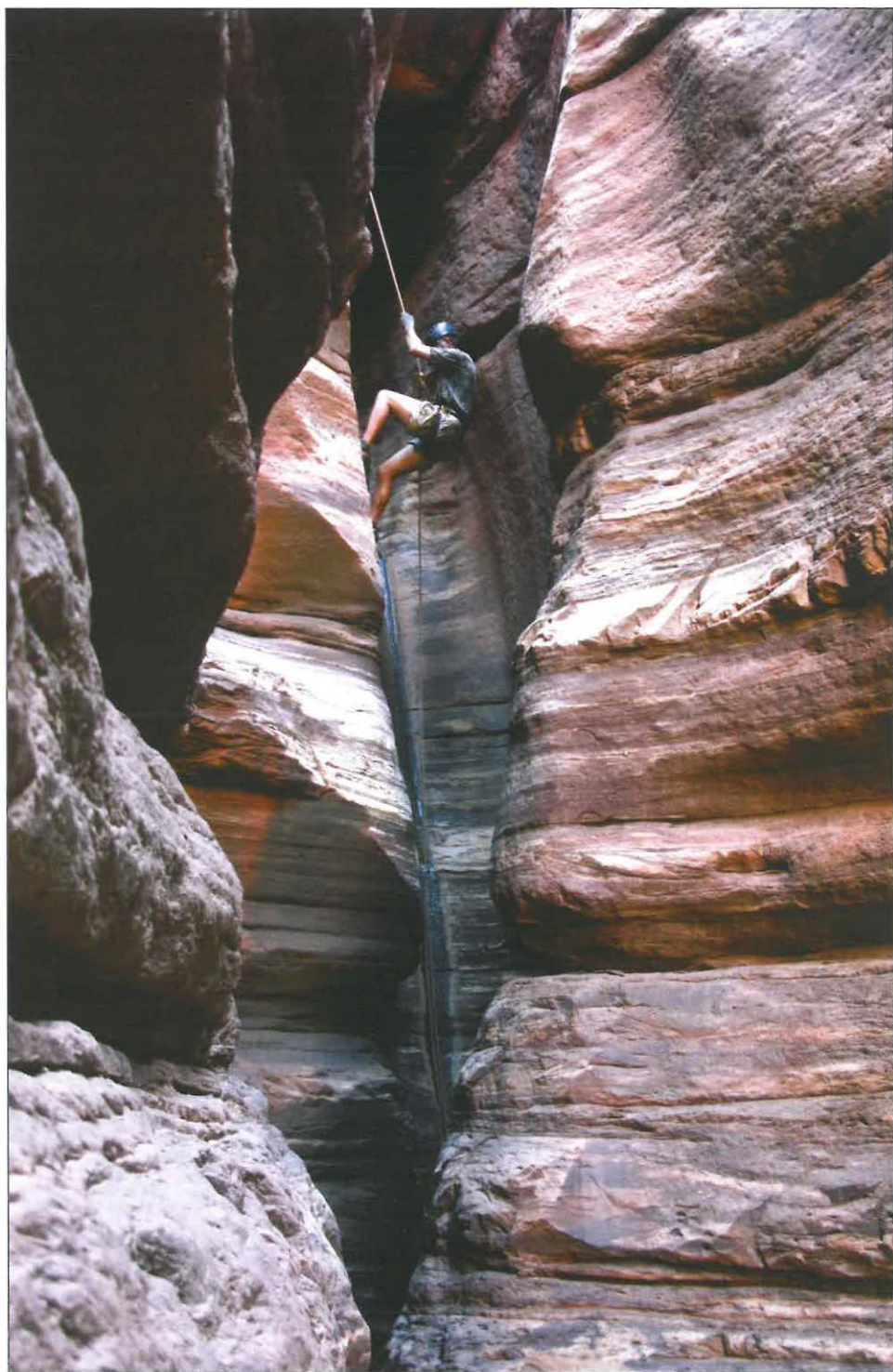
- Albert Putzig/Hades Knoll Canyon
- Rich Rudow/36.7-Mile Canyon
- Rich Rudow/Matkatamiba Canyon
- Aaron Locander/Sheer Wall Rapid

Frontispiece: Rich Rudow and Brian Alleyne in Olo Canyon, photo by Todd Martin

ISBN 978-0-9789614-3-5

Printed in China

*To: Stephanie, for her love, patience and assistance.*



*Tapeats Narrows in Muav Canyon*



## Acknowledgements

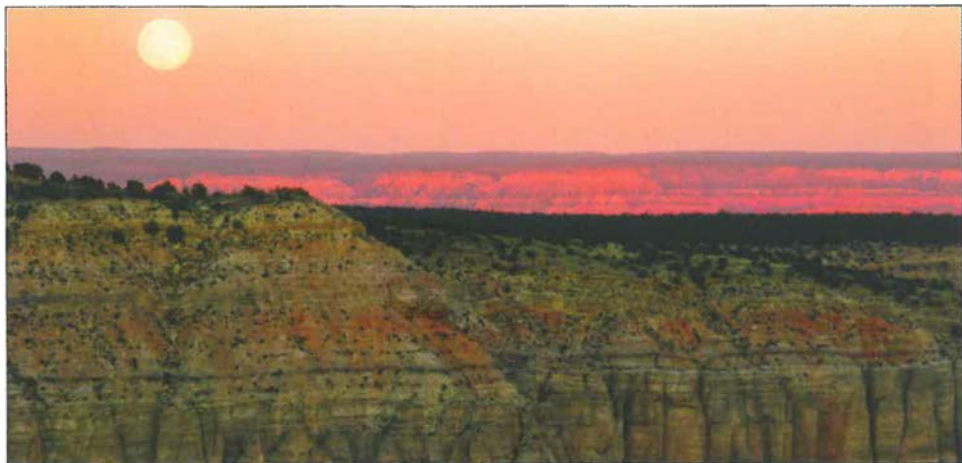
Exploration is made considerably easier when it's possible to build off of the efforts of others who have done the hard work of route-finding, particularly in an area as rugged and unforgiving as the Grand Canyon. To that end I'd like to thank the many individuals who directly or indirectly provided information about routes and canyons that I was able to put to good use in constructing the hikes in this book. In particular I'd like to thank: Brian Alleyne, John Azar, Chris Forsyth, Bob Hostetler, Tom Martin (no relation), Dave Mortenson, Doug Nering, Jim Ohlman, Bill Orman, Glenn Rink, Aaron Tomasi, Wayne Tomasi, and Ken Walters.

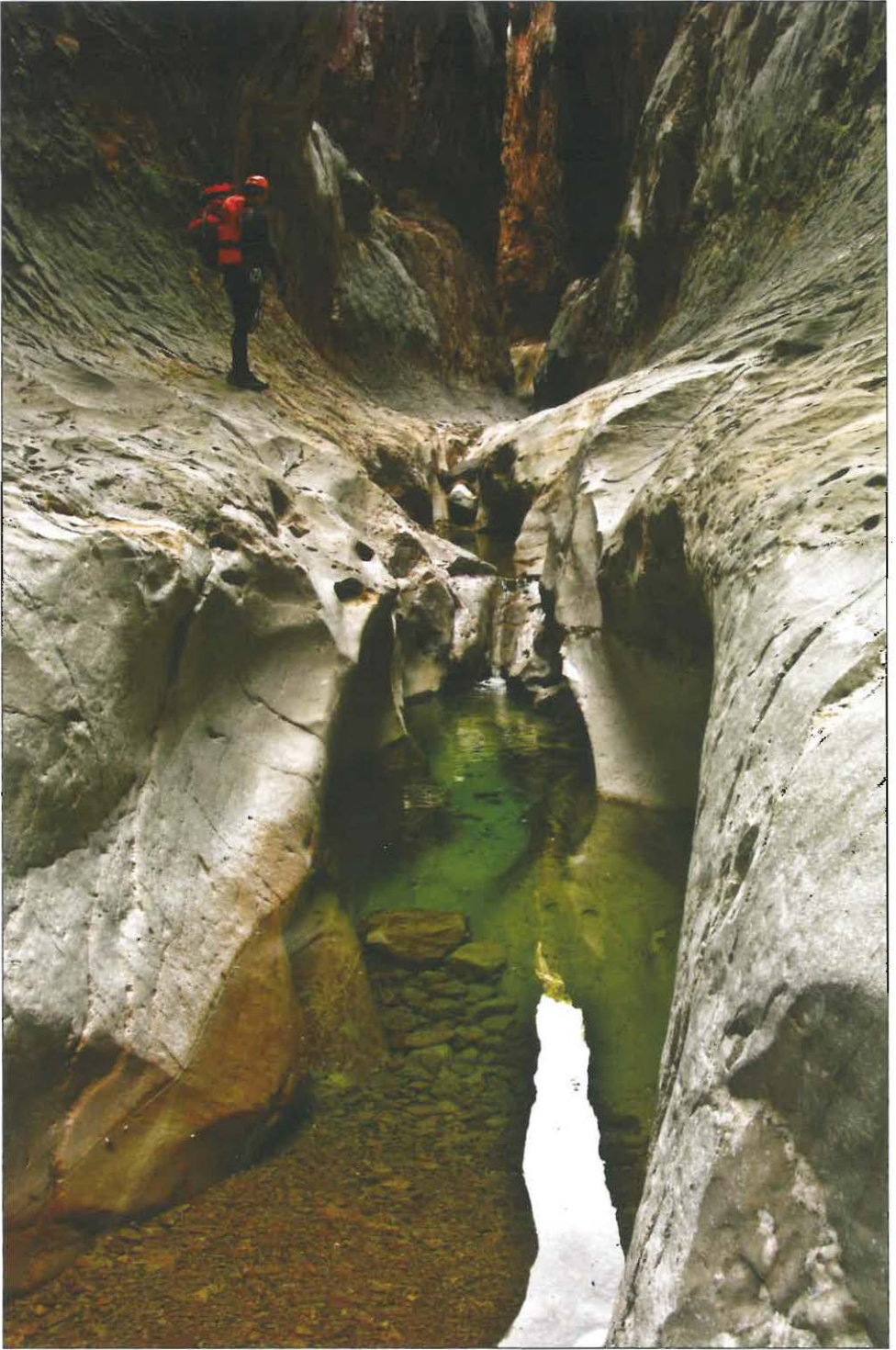
I'd also like to thank Park Ranger Todd Seliga and the Park Service employees at Grand Canyon National Park for their review of this manuscript and input on the text and suggestions for safety. Please do these folks (and me) a favor and BE SAFE while recreating the park!

A special thanks go to Luke Delezene for his review and correction of the grammar and punctuation throughout the book. It is more readable for his efforts.

This guidebook would not have come about if it weren't for the single-minded, obsessive and contagious passion (some might call it a personality disorder) that Rich Rudow has for the Grand Canyon. In addition to his efforts in researching and tracking down individuals with knowledge of obscure routes, his role as chief logistician finding ways to get us in and out of remote locations and his ability to carry heavy loads, Rich has proven to be an ideal hiking partner with which to share these adventures. Believe me, it's not easy to find someone who is safe, steady, reliable, fun to be around and able to withstand my occasional, but infuriating bouts of whining. Quite simply, this book would not have been possible without him.

Finally, much like canyoneering, life itself yields most easily to a team working together towards a common goal. To this end, my wife (and editor) Stephanie has played an indispensable role in making this journey far more enjoyable and rewarding than it could possibly be without her.





*One Hundred Fifty Mile Canyon*

## Foreword

*"The wonders of the Grand Canyon cannot be adequately represented in symbols of speech nor by speech itself. The resources of the graphic art are taxed beyond their powers in attempting to portray its features... The glories and beauties of form, color and sound unite in the Grand Canyon... It has infinite variety and no part is ever duplicated. Its colors, although many and complex at any instant, change with the ascending and declining sun... You cannot see the Grand Canyon in one view... but to see it you have to toil from month to month through its labyrinths... but if strength and courage are sufficient for the task, by a year's toil a concept of sublimity can be obtained never again to be equaled on hither side of Paradise."*

— John Wesley Powell

Soldier, geologist, and explorer of the American West

*"Golly, what a gully!"*

— William Howard Taft

27th U.S. President

**Grand Canyon.** What attracts people to it? Is it the sweeping vistas or the Inner canyon pinnacles? Is it the light play that renders every scene unique for eternity? It is certainly a landscape photographer's nirvana. But from the rim you miss its essence. It is only from deep inside Grand Canyon that you discover a texture, a complexity, even a rhythm. It lives and breathes like an animal. It evolves and changes. It is made up of hundreds of canyons within canyons, like the airways in a lung. Hidden from prying eyes, each side canyon has a unique character and contains stunningly beautiful microenvironments. Many are concealed so well and so deep that they are not named, or even known. Intricate beauty, surprise at every turn, a potpourri of subtle textures and polished rock. These side canyons are *the* primary building block. *The* foundation. *The* pathway for water to move from one million acres of land to one river. *They* are the reason for Grand Canyon to exist. Five million annual visitors gasp from the rim for a few hours before being satisfied with knowing Grand Canyon. Todd Martin's book, *Grand Canyoneering*, is about all of the secrets they have missed.

The Colorado Plateau is home to thousands of slot canyons. Places like North Wash, The Roost, Escalante, and San Rafael Swell contain narrow slices in sandstone full of adventure. But the patriarch of technical canyoneering is Zion National Park and canyoneers worldwide make the pilgrimage to descend its beautiful slot canyons. Grand Canyon, while on the Colorado Plateau, is completely off the radar. Why? First, from the rim no slots are evident. An artifact of scale that plays tricks on the human mind. They must be there, right? Doesn't water course through its veins? It is an enormously hard place to explore, with the most difficult hiking anywhere. Second, Grand Canyon National Park is simply gigantic. People before us might have explored five or ten technical drainages. But not one hundred. Nobody else systematically looked for, and took the risk to descend, so many hidden places. Third, Grand Canyon's drainages are complex, containing many different rock layers, including sandstones, limestones and 1.8 billion year old schists and granites. Many rock layers can contain slots. To explore in Grand Canyon requires a



deep and intimate view of off trail Grand Canyon hiking, its geology, history, faults and the Colorado River itself. The river is often the only way home. The limestone slots of Grand Canyon will distinguish it from all other places on the Colorado Plateau, where sandstone slots rule. With *Grand Canyoneering* in hand, more people can visit these stunning marble labyrinths, and safely return home with stories of hidden beauty and fine adventure. They can also carry far less gear than the explorers did to first descend these unknown marble galleries.

Todd and I first met in 2006 after an email exchange about Deer Creek. I had spent the prior 17 years hiking Grand Canyon, mostly often with my brother-in-law, Dale. We started with trails, then went off-trail and finally began using ropes to get to new places that we wanted to explore. On the other hand, Todd had been, well, EVERYWHERE. His website, [www.ToddsHikingGuide.com](http://www.ToddsHikingGuide.com) was the online authority for hikes in Arizona. When Todd later made an inquiry about Buckfarm Canyon I could smell an adventure. I had been up Buckfarm from river level to the last rappel and I knew how to exit the canyon back to the rim from that area. Todd and I began our adventures with a couple of warm-up hikes scouting some other slots, but the Buckfarm expedition is what started the binge of exploration for new slots in Grand Canyon. We spent hundreds of hours in the car to and from Grand Canyon debating public policy, science, and heavy metal music. We were both the same age and in excellent physical condition. We both enjoyed rising at dawn and being on the trail 30 minutes later. Powered by curiosity and a love of nature, we would hike until dusk, when physical exhaustion set in ... and the next day we would do it all over again. These were the adventures of a lifetime, exploring in an incredible place, with a great friend.

John Wesley Powell first set foot in the canyon 141 years ago. And to this day, many Grand Canyon slots remain unexplored. Remote access, difficult hiking, sheer cliffs, deep pools, hypothermia, huge rapids, and the fear of the unknown ahead that grips many when the rope is pulled became common experiences. Over a three year period, Todd and I spent more than 150 days in Grand Canyon exploring more than 110 slot canyons of which 84 descents required ropes. It's plausible that more than 50 first descents came out of this effort. There were three instances where our ropes were far too short and at least half a dozen instances where they "just" reached. Roughly 400 rappels were done in these explorations, all without incurring a single notable injury. The complexity of Grand Canyon slots required the development of new systems to enable canyoneering descents in an environment different from any other on the Colorado Plateau. Multi-day trips became the norm with minimalist camping gear. Careful trip pre-planning and the use of GPS navigation became important to enable speedy progress along complex routes when carrying minimal supplies. Small specialized backpacks with good climbing maneuverability and water drain holes allowed us to swim in slots without removing packs while the camp gear, dry bagged inside, provided floatation. Effective raft systems were synthesized that were very light and could be carried inside our canyoneering backpacks to allow escape from slots using the Colorado River. We roped friends into these adventures as often as possible to help spread the exploration gear around. They were rewarded with a brisk non-stop hiking pace over death defying terrain until we dropped into the target slot. Then they endured the common command "oh ... stop right there" as the camera shutters started clicking. Many fond memories come to mind. Thanks for putting up with us.

# FOREWORD

Many off trail Grand Canyon hikers reference two books covering extensive off trail hiking: Harvey Butchart's *Grand Canyon Treks: Twelve Thousand Miles through the Grand Canyon* and George Steck's *Hiking Grand Canyon Loops*. These references provide a framework for remote backcountry travel. But even Butchart and Steck had not been in many of the places we needed to access. We owe a debt of gratitude to a small group of Grand Canyon explorers, and great friends, who helped us fill in many gaps. They came before us and discovered intricate routes. Their work allowed us to quickly access these remote side canyons, and equally, to escape their depths after we rappelled through.

*Grand Canyoneering* does far more than provide accurate information to descend 117 side canyons in Grand Canyon National Park. In Todd's clear and succinct writing style, you will learn about safety issues unique to Grand Canyon. You will learn about flora and fauna. You will learn which gear is most effective. You will learn about technical canyoneering technique and low impact natural anchoring. Standing on the shoulders of Grand Canyon's hiking and climbing giants, Todd has succeeded in peeling back one more layer of the onion that is Grand Canyon. You will find easy hikes that don't require ropes to lesser known places for beginners, technical slots accessible through day hikes for the hit and run crowd, and complex technical backpack loops for advanced canyoneers seeking remote adventure. Most of all, you will find intricate beauty in these secret places that rival, or even exceed, any vista. Over one hundred and fifty stunning color photos of Grand Canyon's microenvironments will surely inspire people who would never hike in Grand Canyon. This is a work of art. A passion. Perhaps even an obsession. A way for humanity to more deeply appreciate one of the seven wonders of the natural world. Golly, what a gully! ... Indeed.

—Rich Rudow

December 14, 2010



*Rich Rudow after a chance encounter with a commercial rafting party*



*Deer Creek Falls*

## Introduction

### *NOTES FROM NARROW PLACES*

It's been said that while the average stay in the Grand Canyon lasts between 5 and 7 hours, the average time spent looking at the canyon is just 17 minutes. One might be tempted to chalk this up to a culture with the attention span of a goldfish suffering from ADHT. I, for one, think this is simply a matter of prudence. The longer one looks, the more a curiosity begins to take hold as your mind naturally begins to wonder about what it might like to walk through the Canyon. What would it feel like, smell like, what would you see? Those valleys and mesas; have they been explored? What would it be like to stand on top of one of the inner peaks? That crack leading into darkness, how deep does it go and what would be found in its depths? What kinds of animals can be found in the Canyon? Where and how do they live and what do they eat and drink? If a raven were flying low over the trees above the plateau and suddenly flew past the rim, a mile of empty space suddenly yawning beneath its feet, would it experience vertigo, a rush of adrenaline, or utter a silent 'whoa' under its breath and momentarily forget to flap its wings? The others, who have taken their pictures and turned away, have avoided the Canyon's call, but you have lingered ... and now it is too late. You must explore the Canyon for yourself.

My interest in the Grand Canyon began casually enough after moving to Arizona in 1997 with a drive to the rim to peer into the depths of the abyss. Setting eyes for the first time on the Grand Canyon it was easy to be overwhelmed by the scale and grandeur of the place. Hiking the canyon began with a 4-day backpacking trip to Clear Creek and back from the south rim along the popular Bright Angel and South Kaibab Trails. It was a wonderful fall trip and the leaves were changing on the cottonwood trees that swayed in the breeze above our tent. Below, the mice scampered and rustled through dry foliage stopping occasionally to sniff the air and leap hopefully for our food-bag which hung tantalizingly just out of reach. We felt a need to return and over the next few years my wife and I completed semi-annual backpacking trips tracing out many of the better-known trails and routes. We section hiked the length of the Tonto Trail as well as the more established rim to river routes, gaining a better idea of the Canyon's character and changing seasons.

Inspired by photographs taken by river-runners of beautiful side canyons, narrows, pools and waterfalls that were only accessible by boat, I began to wonder whether it would be possible to visit those locales on foot. It just didn't seem fair that those lazy river runners, with their steak dinners, fresh salads and cold beer could visit these beautiful locations simply by stepping onto shore; while I, a sweat-stained, foot-sore hiker with only a half stale Pop-Tart on which to piteously gnaw, was left to gaze longingly at their photos. To rectify this inequity, strategies involving hiking, climbing, routefinding, rappelling and packrafting were devised as a means to experience these remote locations. And ... with some trial and error, the Canyon began to reveal its secrets. Like a Russian matryoshka doll, there are canyons within canyons within the Grand Canyon. And like others who had gone before, an obsession was born.

There are many reasons that the Grand Canyon continues to inspire. There's the



visually powerful landscape of expansive vistas, airy heights, plunging depths, towering pinnacles, sheer-walled buttes, spires, mesas, temples, and the vast, multihued, labyrinthine topography. There's the diversity of ecosystems that results from the park's distinct topography ... five of the seven North American life zones are represented in the canyon, all within a remarkably small geographic area. There's the fact that Grand Canyon National Park is an ecological refuge, with relatively undisturbed remnants of dwindling ecosystems and numerous endemic, rare or endangered plant and animal species. Then there's the geologic record that spans all four eras of the earth's evolutionary history, from the Precambrian to the Cenozoic.

These features are more than enough for most people to consider the Grand Canyon among the seven wonders of the natural world, but for canyoneers there is yet another reason to explore. This is because within the deepest corners of the main Canyon itself, hidden away from the casual observer, are seldom-visited, smaller tributary canyons that exhibit stunning beauty, intimacy and opportunity for adventure. To me, the contrast between the expansive and the intimate is what makes the Grand Canyon superbly grand.

### **CANYONEERING**

"Canyoneering" (sometimes called canyoning) is the sport of exploring canyons, streams, ravines, rivers, and gorges by climbing, rappelling, swimming, or rafting. The term appears to have been originally coined (and appropriately, given the subject of this book) by a member of John Wesley Powell's party on his first expedition down the Colorado River in 1869. "Technical Canyoneering" simply means that the canyon requires the use of rope and techniques such as rappelling, ascending, anchor building, and, in some instances, more advanced techniques such as pothole escape, to descend.

This guidebook is somewhat different from others in that the trips require the user to apply skills from the varied disciplines of backpacking, climbing, orienteering, rafting and technical canyoneering. The upside is that those willing to expand their skill set will find that previously inaccessible areas of the Canyon will become open to exploration. A packraft removes the impenetrable barrier presented by the Colorado River. Rope allows the descent of routes not otherwise possible for the non-technical hiker. Orienteering allows hikers to explore off-trail routes in the backcountry. As a result, this book should appeal



*Todd Martin, roadside explorer (Photo by Rich Rudow)*

to backpackers who wish to put together new loops and routes using a packraft, rafters who'd like to perform some canyon descents as part of their river trip, canyoneers who are looking for remote multi-day expeditions and more! The downside is that these techniques add complexity to the trip, creating more opportunities for error.

Safe descent of these canyons requires both basic and advanced canyoneering skills. These techniques will be described here in a general fashion; however, it is outside the scope of this book to provide detailed technical canyoneering instruction. It is up to the reader to develop the requisite skill set prior to attempting any of these hikes. As an added caution, many of the canyons described in this guide require walking long distances over rough terrain, often off-trail, in remote areas of wilderness. Both a high level of physical fitness and the ability to read a map should be included in the list of skills necessary for safe completion of these canyons.

For those willing to put in the time and effort to develop these abilities, the trips described in this book will take you through some of the most beautiful and remote country to be found anywhere within the Grand Canyon. Narrow slot canyons with moss covered walls, peaceful pools, dripping grottos, thundering waterfalls, sheer cliffs and beautiful cascades await those willing to pay the often high price of admission. Unfortunately, this cost is extracted in the form of long drives, blown tires, rugged terrain, thick brush, sharp thorns, blistering heat, frigid swims and sheer, grinding, physical exertion. As they say, 'there are no shortcuts to any place worth going' and these places are all worth going.

## ***TECHNICAL CANYONEERING***

It cannot be stressed enough that those attempting the routes described in this book develop the necessary technical knowledge prior to undertaking these hikes. This can, and should, be achieved through formal classes as well as by descending canyons with more experienced canyoneers who can 'show you the ropes' as it were. Technical canyoneering borrows techniques from rock climbing and caving. Those with a background in these sports will find that many of the same techniques work well in canyons. It would be a mistake, however, to assume that climbing and caving skills are enough to address all of the obstacles found in canyoneering. Swift water, floating disconnects, swimming, jumping, pothole escape, anchor construction, awkward rappels, retrievable anchor and rope pull-down techniques are all unique to canyoneering, or take on an added significance due to the nature of the sport.

Those looking for training in canyoneering techniques may wish to contact a business that offers formal instruction. In addition to increasing safety and efficiency, classes can also provide an opportunity to meet other canyoneers in your area.

Formal training will not only improve your safety and enjoyment, but it will help protect the canyons from the accumulation of extraneous webbing and the proliferation of bolt gardens that are prone to occur when inexperienced canyoneers apply brute force to a canyon where low impact techniques are better suited. It is a privilege to experience these beautiful wild areas in their natural state, and the responsibility of all to ensure their natural character remains for those that follow to enjoy. For this reason, this book will focus on natural anchors and low impact techniques that can be safely employed to reduce the need for permanent fixed anchors.

## ***CANYONS WITHIN THE GRAND CANYON***

The Grand Canyon is known for its stratified geology and wonderful canyons may be found in just about every layer (except for those composed of shale, they are a bust). It

should therefore come as no surprise that the Grand Canyon boasts a broad range of canyon types — from the blacks and grays of the granite gorge, to red, yellow and golden sandstone slots, to rust-colored and gray polished limestone. There are canyons so deep that they are cloaked in gloomy shadows during the brightest periods of the day. Narrow canyons with sculpted walls, V-shaped gorges with perennial streams, dry rocky washes, and spring fed oases. Though it is unlikely that Arizona will supplant the Colorado Plateau of southern Utah as the canyoneering Mecca of the United States, there can be no comparison between the two areas in terms of the wide range of canyons that can be experienced.

The canyons described in this book feature an array of water conditions, ranging from dry to wet, from pools of warm bath water to frigid potholes only a few degrees above freezing, from pleasant cascades to roaring falls. It might come as a surprise to some who see the Grand Canyon as an arid, dusty desert that wading and or swimming is required to descend many of the canyons in this book, often in water that remains bone chillingly cold, even during the summer months (and this in a state where some of its cities experience temperatures above 90°F up to six months of every year). More than one canyoneer has had cause to question their sanity while carrying a thick wetsuit through sun baked cactus country on a blazingly hot day on their way to, or from, an Arizona canyon. Those that have had firsthand experience with hypothermia induced shivering after an icy swim under identical meteorological conditions can vouch for the good sense in being properly outfitted.

For those interested in the technical aspects of the sport, the canyons of the Grand Canyon offer many of the challenges associated with both swift water and dry canyons along with natural anchor problems, long rappels and keeper potholes. For many, solving these technical problems make up half the enjoyment of the sport. One of the arguments against fixed anchors, such as bolts, is that they bring the technical challenge of the canyon down to the most basic level of experience. Between this, and the fact that bolts detract from the wilderness experience sought by those who might venture into these remote areas, the current consensus among the canyoneering community is that bolts should only be placed as a last resort and only when the safety of the group is in danger or significant damage would be caused to the environment, i.e. rope grooving. Consider it a challenge to raise your own skills to the level of the canyon, rather than bringing the canyon down to your own. Keep in mind that the latter affects not just your own party, but every group seeking the same wilderness experience to follow. We are fortunate that it is still very easy to experience true wilderness in the Grand Canyon. Though some of these areas are becoming better known, quite a few have seen very little visitation to date. It is expected that publication of this book will increase traffic to certain canyons; however, it is likely that others, due to the sheer physical and logistical efforts required to see them, will never experience heavy use. Nonetheless, it should be the goal of every canyoneer to adhere to a leave-no-trace ethic which applies equally to webbing and fixed anchors as it does to beer cans and candy wrappers.

*“But if the Grand Canyon is just some ditch  
Dorothy and Toto fought just some witch  
And if Babe Ruth was just a guy with a glove  
Then, oh, baby, this is just some love  
Oh, baby, this is just some love”*

— ‘Just Some Love’ by The Ranch





*The narrows at the mouth of Havasu Creek*

## About this Book

The author has gone to great lengths to accurately document the conditions as they existed when he descended these canyons and has attempted wherever possible to accurately convey details regarding driving directions, the approach route, gear requirements, obstacles, necessary skills, associated risks and key canyon features such as anchors and rappel lengths. It should be noted, however, that canyons are dynamic and ever changing environments. Rockfalls and flash floods can change the character of a canyon overnight. New obstacles can form, old anchors can be washed away, water levels and temperatures can change with each rainstorm or added day of drought. There is **absolutely no guarantee** that the canyon will reflect the conditions as described in this book. In addition, as with any human endeavor, errors can always occur. Errata will be posted at: <http://www.ToddsHikingGuide.com/GrandCanyoneering>

Each canyon description contains the following information to help with the planning and execution of a successful trip.

**Overview:** This section includes a brief description of the canyon including basic information and highlights of the trip.

**Location:** As one might guess, this includes the general location of the canyon and includes the Grand Canyon use areas.

**Required Gear:** A list of technical gear that should be carried in order to successfully complete the canyon is provided. Be aware that in the Grand Canyon there are often multiple anchor choices at each rappel. The amount of rope needed will depend upon the anchor chosen.

**Special Considerations:** Additional details or challenges that may be unique to the canyon or pertinent to the trip are discussed in this section as well as water availability and permitting requirements.

**ACA Rating:** The American Canyoneering Association rating system assigns a score to a canyon that provides an indication as to its difficulty (much like the Yosemite Decimal System used by climbers). The rating system consists of four parts:

- Terrain / Technical Rope Work: 1, 2, 3, 4
- Water Volume/Current: A, B, C
- Risk / Seriousness (optional): R, X
- Time / Commitment: I, II, III, IV, V, VI

The rating system is explained in more detail in Appendix B.

**Distance:** The total distance traveled on foot over the course of the hike. All mileages are approximate.

**Physical Difficulty:** None of the canyons described in this book are easy, in fact it's safe to say that most are downright difficult. With that in mind, I have broken out the canyons into categories of physical difficulty: Moderately Strenuous, Strenuous, and Extremely Strenuous (think: hard, harder and hardest). These will not mean very much until you've completed a canyon or two, but afterwards it will provide a rough comparison of physical difficulty that may prove useful in trip planning. I'd strongly recommend beginning with those at the Moderately Strenuous end of the scale to get a feel for the amount of time and effort these trips require. Keep in mind that difficulty is a subjective measure and will depend on an individual's physical condition and the amount of weight carried. In addition, be aware

that other factors such as weather, other individuals in your group, or other complicating issues could have a compounding effect on the level of difficulty. It is up to each hiker to know their own limits; when in doubt turn around before becoming committed.

**Elevation:** This field lists the highest and lowest elevation that will be experienced during the trip. Be aware that this does not represent the total elevation gain and loss over which you'll hike.

**Time Needed:** Use this section as a very rough guide during the trip planning process. The actual time it will take to complete a trip will depend on many factors, none of which can be predicted with any accuracy. I have used my time as the minimum time listed and added another 50–100% to create a rough range to account for time spent taking pictures, getting lost, rigging anchors and figuring out which leg goes into which strap on your harness. There are absolutely no guarantees that your completion times will fall within the ranges given.

**Best Time of Year:** Some canyons lend themselves to be descended during certain times of year, usually due to temperature considerations, but this could also be due to water flow or the presence of ice. This field provides a basic idea of the best time of year to attempt the canyon. Due to temperature variability within each season, and the unpredictability of rainfall rates, there is no guarantee that conditions will necessarily be ideal during the range provided.

**Vehicle:** This section provides information about whether the canyon may be accessed with a passenger car, high clearance vehicle or only by vehicles with both high clearance and 4-wheel drive. Be aware that a dirt road that accommodates passenger vehicles may require a high clearance vehicle if not recently graded, a bumpy dirt road with some larger rocks, may require 4-wheel drive if muddy and that a very rocky or muddy road, may be impassable during certain times of year. It should also be noted that Arizona has a 'Stupid Motorist Law' on the books. If you drive around a barricade to enter a flooded roadway, you may be responsible for the cost of rescue, should you require assistance.

**Car Shuttle:** Though many of the canyons described in this book can be completed as a loop hike, there are a few that require a car shuttle. In some cases a second car can shorten the trip or eliminate a boring slog.

**Maps:** Although maps are provided in this book for each canyon, they are not of sufficient size or detail to use as the sole means of navigation for these hikes. It is imperative that canyoneers carry a detailed topographic map of the area in which they will be traveling. The United States Geological Service (USGS) 1:24,000 scale (7.5 inch quad) is listed for each canyon in this book. These maps are available from the USGS or from a local retailer such as Wide World of Maps. Another option is to purchase a software program such as the National Geographic Topo! State Series for Arizona, which includes all of the 1:24,000 scale maps for the entire state on 8 CD-ROMs.

Wide World of Maps: <http://www.maps4u.com>

**Navigation:** Off-trail route-finding is an integral part of gaining access to many of these canyons. This field provides a rough idea of the route-finding difficulty involved in each trip.

- **Easy:** Well marked trail or canyon with no side passages, little route-finding is required.
- **Moderate:** Some route-finding and cross-country hiking required; some experience with backcountry off-trail travel is advised.
- **Difficult:** Extensive cross-country hiking and route-finding is required; excellent map reading skills and ability to navigate through complex, rugged backcountry terrain is necessary.

**Icons:** Each canyon description is marked with a set of icons that provide a quick snapshot of the types of skills required to negotiate the canyon. For a complete description of obstacles, see the trip description.





**Rappelling:** The canyon requires rappelling and may contain awkward rappel starts, long rappels or other obstacles that requires above average rappelling technique.



**Climbing:** The canyon contains exposed climbing or climbs on slippery rocks that require above average climbing skills. A belay may be required for less experienced members of the group.



**Hiking:** The canyon requires hiking long distances over potentially rugged terrain and requires a high level of fitness to complete.



**Slippery Conditions:** The canyon contains polished rocks that can be extremely slick, particularly when wet. Shoes with good traction are recommended.



**Wading:** The canyon requires wading. Footwear appropriate for wet conditions is recommended.



**Swimming:** The canyon requires swimming or extended wading. All members of the party should be able to swim.



**Keeper Pothole:** The canyon contains a keeper pothole that could present a danger to those unfamiliar with pothole escape techniques.



**Route-finding:** The canyon requires considerable off-trail navigation or follows a route that is difficult to negotiate requiring above average navigational skills.



**Camping:** The canyon is typically done as an overnight trip, or is of sufficient length that groups should be prepared to bivouac if they run out of daylight.



**Flash Flood Danger:** Though all canyons can potentially flash, due to the size of the drainage or lack of escape options, flash flood dangers are elevated in these canyons.



**Swift Water:** The canyon contains perennial flowing water with a potentially strong current that could prove dangerous.



**Cold:** The canyon contains potential exposure to cold due to water temperatures that remain low year round.



**Heat:** The canyon contains potential exposure to heat due to factors such as a long approach, low elevation or lack of shade.



**Packrafting – Skill Level 1 (Basic):** Basic packrafting skills are required to complete the trip. Gentle current, small waves, portaging may be necessary to avoid larger rapids, rain gear is sufficient to stay dry. Trip is suitable for beginner packrafters.



**Packrafting – Skill Level 2 (Intermediate):** One to three foot waves, eddies and whirlpools that can swamp and/or flip the boat, portaging and backpaddling necessary to avoid rapids, a drysuit or wetsuit is required as insurance against cold water. Trip is suitable for intermediate packrafters.



**Packrafting – Skill Level 3 (Advanced):** Swift current, unavoidable waves and/or rapids, high likelihood of swamping and/or flipping, difficult or hard to find take-out points for ferrying, a drysuit or wetsuit is required as insurance against cold water. Trip is suitable for more advanced packrafters.



**Other skills needed:** See hike description



**Danger!** Though every canyon contains inherent dangers. These trips should be approached with an added level of caution. See the trip description for more details.

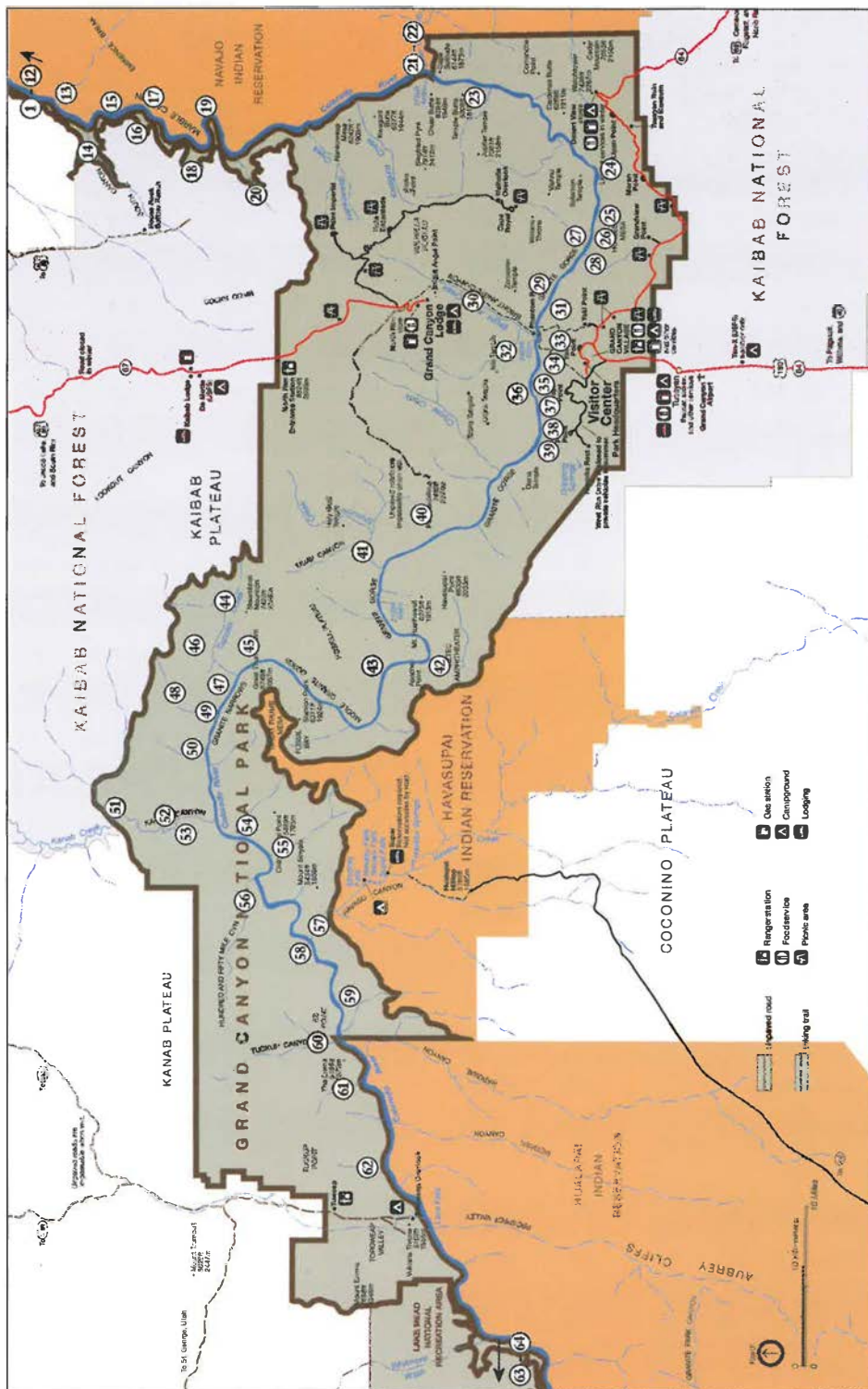


**Driving Directions:** Getting lost on the way to a canyon can be frustrating and lead to delays that can put the trip in jeopardy. Directions are complicated by the fact that some roads are not signed, or signed at infrequent intervals, and the fact that road conditions can change with time and weather. Even if you follow these directions closely there may be times when you are left wondering whether you are on the right track. Minimize this uncertainty by bringing a detailed Arizona road atlas on every trip. A GPS and detailed topographic map will also be a useful tool and can potentially save tedious hours of driving in circles.

**Trip Description:** Each trip description contains details of the obstacles that will be encountered in the canyons. A conscious decision has been made to describe anchors at each rappel. The purpose wasn't to preclude the use of other anchors or even to suggest the best of the possible anchor options, but only to communicate that anchor options do exist for each technical section of canyon described for those that would be inclined to place bolts where an obvious solution is not readily apparent. Feel free to utilize your own problem solving skills and be creative in your use of natural anchors as long as they are safe and preserve the natural character of the canyon. In addition, though I have done my best to develop the best approach and exit routes to each canyon, be aware that better ones may exist. As a convention, the use of the directions 'left' and 'right' in a canyon are used with the assumption that the canyoneer is facing downcanyon unless otherwise noted. Forks of a canyon are described as if facing upcanyon.

**Author's Rating:** This is a totally subjective ranking of the quality of the canyon from 1–5 stars loosely based on the ratio of beauty and fun to the amount of effort and unpleasantness required to complete the trip. Feel free to ignore or attach unwarranted importance to this section as you see fit.





## Reference Table of Canyons

Canyon	Hike Number	Rating	Time Needed	Longest Rappel <sup>1</sup>	Author's Rating	Page
2.8-Mile Wash	3	3A I	2 – 3 hours	160'	★★	141
3.7-Mile Wash	3	3A I	2 – 3 hours	125'	★★	141
4.4-Mile Wash	3	3A I	2 – 3 hours	75'	★★	141
5-Mile Wash	4	3A II–III	5 – 9 hours	110'	★★	144
5.5-Mile Wash	4	3A II–III	5 – 9 hours	50'	★★	144
12.2-Mile Wash	8	3A II	4 – 6 hours	100'	★★	161
35-Mile Canyon	15	3B VI	2 – 4 days	160'	★★★★	191
36-Mile Canyon	15	3B VI	2 – 4 days	120'	★★★★	191
36.7-Mile Canyon	16	4B R VI	2 – 3 days	220'	★★★★★	197
150-Mile Canyon	56	3B VI	2 – 4 days	50'	★★★★★	429
Badger Canyon – North Fork	5	3A III	5 – 9 hours	60'	★★★★	148
Badger Canyon – South Fork	5	3A III	5 – 9 hours	100'	★★★★	148
Bedrock Canyon	14	2B III	6 – 10 hours	N/A	★★★	187
Big Canyon	21	3B IV–V	1 – 2 days	100'	★★★★★	225
Big Spring Canyon	40	3B VI	2 – 4 days	160'	★★	325
Blacktail Canyon	43	3A VI	2 – 4 hours	50'	★★★★★	341
Bonita Creek	47	3A VI	2 – 4 days	125'	Ø	363
Boulder Creek	31	3A IV–VI	1 – 3 days	125'	★★★★	283
Buck Farm Canyon	18	3B VI	2 – 4 days	160'	★★★★	209
Burnt Canyon – Main Arm	64	1A VI	2 – 4 days	N/A	★★	483
Burnt Canyon – Eastern Arm	64	3B VI	2 – 4 days	250'	★★	483
Carbon Canyon	23	2B V–VI	2 – 4 days	N/A	★★★	249
Cathedral Wash	3	1A I	2 – 3 hours	N/A	★★★★	141
Clear Creek	29	1B VI	3 – 4 days	N/A	★★★	275
Cork Spring Canyon	58	3B R VI	3 – 5 days	240'	★★	441
Cottonwood Creek	26	1B IV–V	1 – 2 days	N/A	★★	263
Cove Canyon	62	3B VI	2 – 4 days	180'	★★★★★	469

<sup>1</sup>Note: The longest rappel distance may not represent the amount of rope needed due to the fact that the anchor point may be some distance back from the edge.



# REFERENCE TABLE OF CANYONS

Canyon	Hike Number	Rating	Time Needed	Longest Rappel <sup>1</sup>	Author's Rating	Page
Crack Baby	51, 53	3B VI	2 – 5 days	90'	★★★★	411
Cranberry Canyon	50	3AVI	2 – 4 days	260'	★★	381
Crazy Jug Canyon	44	3B VI	3 – 5 days	55'	★★★★	345
Cremation Creek	31	3A IV–V	1 – 2 days	200'	★★	283
Deer Creek – Lower	49	3C R VI	3 – 4 days	180'	★★★★★	375
Deer Creek – Upper Eastern Fork	48	3B VI	2 – 4 days	100'	★★	367
Deer Creek – Upper Middle Fork	48	3B VI	2 – 4 days	75'	★★★★★	367
Deer Creek – Upper Western Fork	48	3B VI	2 – 4 days	250'	★★★★	367
Dome Pocket Canyon	60	3B V–VI	2 – 4 days	120'	★★★★	453
Fern Glen Canyon	61	3B VI	2 – 4 days	200'	★★★★★	461
Fishtail Canyon – Eastern Fork	50	3B VI	3 – 4 days	95'	★★★★	381
Fishtail Canyon – Western Fork	50	3B VI	3 – 4 days	200'	★★★	381
Flipoff Canyon	51, 53	1A VI	2 – 5 days	N/A	★★	411
Garden Creek	34	4C IV–V	1 – 2 days	200'	★★★★	299
Grapevine Creek	28	2B VI	2 – 5 days	N/A	★★★	271
Hades Knoll Canyon	60	3B VI	2 – 4 days	50'	★★★★★	453
Hance Creek	25	1B IV–V	1 – 2 days	N/A	★★★	259
Havasü Creek	57	1C VI	3 days	N/A	★★★★	437
Hermit Creek – Upper Technical Canyon	39	3B IV–V	1 – 2 days	140'	★★	321
Hermit Creek – Trail	39	2B IV–V	1 – 2 days	N/A	★★★	321
Hidden Springs Canyon	63	3B VI	3 – 5 days	140'	★★★	477
Horn Creek	35	3AVI	2 – 3 days	130'	★★	303
Hot Na Na Wash	10	3A III–IV	1 – 2 days	120'	★★	169
Indian Hollow	51	2AVI	2 – 4 days	N/A	★★	393
Jackass Creek	6	2A II	4 – 6 hours	N/A	★★★	153

<sup>1</sup>Note: The longest rappel distance may not represent the amount of rope needed due to the fact that the anchor point may be some distance back from the edge.

# REFERENCE TABLE OF CANYONS

Canyon	Hike Number	Rating	Time Needed	Longest Rappel <sup>1</sup>	Author's Rating	Page
Jumpup Canyon	51	1A VI	2 – 4 days	N/A	★★★★★	393
Kanab Minus Two Canyon	51, 52	3A VI	2 – 5 days	180'	★★	401
Kanab Minus One Canyon	51, 52	3A VI	2 – 5 days	120'	★★	401
Kanab Zero Canyon	51, 53	3A VI	2 – 5 days	215'	★★★★★	411
Kanab One Canyon	51, 53	3A VI	2 – 5 days	180'	★★★★	411
Kanab Two Canyon	51, 53	3A VI	2 – 5 days	240'	★★	411
Kanab Creek	51	1B VI	4 – 6 days	N/A	★★★★	393
Kirk's Chasm	51, 52	3B VI	4 – 8 days	175'	★★★★★	401
Lava Canyon	23	2A V–VI	2 – 4 days	N/A	★★	249
Little Colorado River Gorge	22	1C VI	4 – 6 days (or more)	N/A	★★★★★	238
Lonetree Canyon	31	3A IV–VI	1 – 3 days	200'	★★	283
Matkatamiba Canyon	55	1B VI	4 – 8 days	N/A	★★★★★	423
Muav Canyon	41	3A VI	2 – 4 days	100'	★★	331
Monument Creek	38	1B VI	2 – 4 days	N/A	★★★★	317
National Canyon	59	2B VI	3 – 6 days	N/A	★★★★★	447
Nautiloid Canyon	15	3B VI	2 – 4 days	175'	★★★★	191
Ninetyone Mile Canyon	36	1A VI	3 – 5 days	N/A	★★	307
North Canyon	12	3A IV	8 – 12 hours	70'	★★★★	177
North Spring Canyon	56	3B VI	2 – 4 days	240'	★★	429
Olo Canyon	54	3B VI	4 – 6 days	100'	★★★★★	419
Panameta Canyon	55	3B VI	4 – 8 days	100'	★★★★★	423
Papago Creek – Western Fork	24	3A V–VI	2 – 4 days	120'	★★	253
Papago Creek – Eastern Fork	24	3A V–VI	2 – 4 days	175'	★★	253
Paria Canyon	2	1B VI	3 – 6 days	N/A	★★★★★	135
Phantom Creek	32	2B VI	2 – 4 days	20'	★★	289
Pipe Creek – Western Fork	33	3B IV–V	1 – 2 days	200'	★	295
Pipe Creek – Eastern Fork	33	3B IV–V	1 – 2 days	200'	★★	295
Pocket Point Canyon	59	3B VI	4 – 8 days	175'	★★	447

<sup>1</sup>Note: The longest rappel distance may not represent the amount of rope needed due to the fact that the anchor point may be some distance back from the edge.

# REFERENCE TABLE OF CANYONS

Canyon	Hike Number	Rating	Time Needed	Longest Rappel <sup>1</sup>	Author's Rating	Page
Rattlesnake Canyon	51, 52	3B VI	4 – 8 days	100'	★★★★	401
Ribbon Falls	30	3B VI	2 – 4 days	150'	★★	279
Rider Canyon – Trail	11	1B III	5 – 8+ hours	N/A	★★★★	173
Rider Canyon – Upper	11	3B III	5 – 8+ hours	170'	★★★★	173
Rocky Point Canyon	60	3B VI	2 – 4 days	80'	★★★★	453
Royal Arch Creek	42	3B VI	3 – 4 days	170'	★★★★	335
Saddle Canyon (River-Mile 47)	20	4B R VI	3 – 5 days	385'	★★★	219
Saddle Canyon (Central Grand Canyon)	44	1B VI	3 – 5 days	N/A	★★★	345
Salt Creek	37	3A VI	2 – 3 days	250'	★★	313
Salt Trail Canyon – Trail	21	1A III	4 – 6 hours	N/A	★★	225
Salt Trail Canyon – Technical Canyon	21	4B R IV–V	1–2 days	130'	★★★	225
Salt Water Wash	8	1A II	4 – 6 hours	N/A	★★	161
Scotty's Hollow – North Fork	51, 53	3A VI	2 – 5 days	40'	★★	411
Scotty's Hollow – South Fork	51, 53	2B VI	2 – 5 days	N/A	★★★★★	411
Sevenmile Draw	4	3A II	3 – 6 hours	85'	★★	144
Soap Creek – North Fork	7	3A II	4 – 6 hours	100'	★★★	157
Soap Creek – South Fork	7	1A II	4 – 6 hours	N/A	★★	157
South Canyon	14	2B III	6 – 10 hours	N/A	★★★	187
Stina Canyon	44	3B VI	3 – 5 days	80'	★★	345
Stairway Canyon	61	2A VI	2 – 4 days	N/A	★	461
Stone Creek	45	3B VI	3 – 6 days	120'	★★★★	353
Surprise Canyon	63	1A VI	3 – 5 days	N/A	★★	477
Tanner Wash	9	2–3B R IV	1 – 2 days	50'	★★★	165
Tapeats Cave Canyon	46	4B R VI	2 – 4 days	450'	★★★	359
Tatahatso Wash	17	3B VI	2 – 3 days	75'	★★★★	203
Tatahoysa Wash	19	3A IV–V	1 – 2 days	150'	★★★	215
Tincanebitts Canyon	64	3B R VI	2 – 4 days	250'	★★★★	483

<sup>1</sup>Note: The longest rappel distance may not represent the amount of rope needed due to the fact that the anchor point may be some distance back from the edge.

# REFERENCE TABLE OF CANYONS

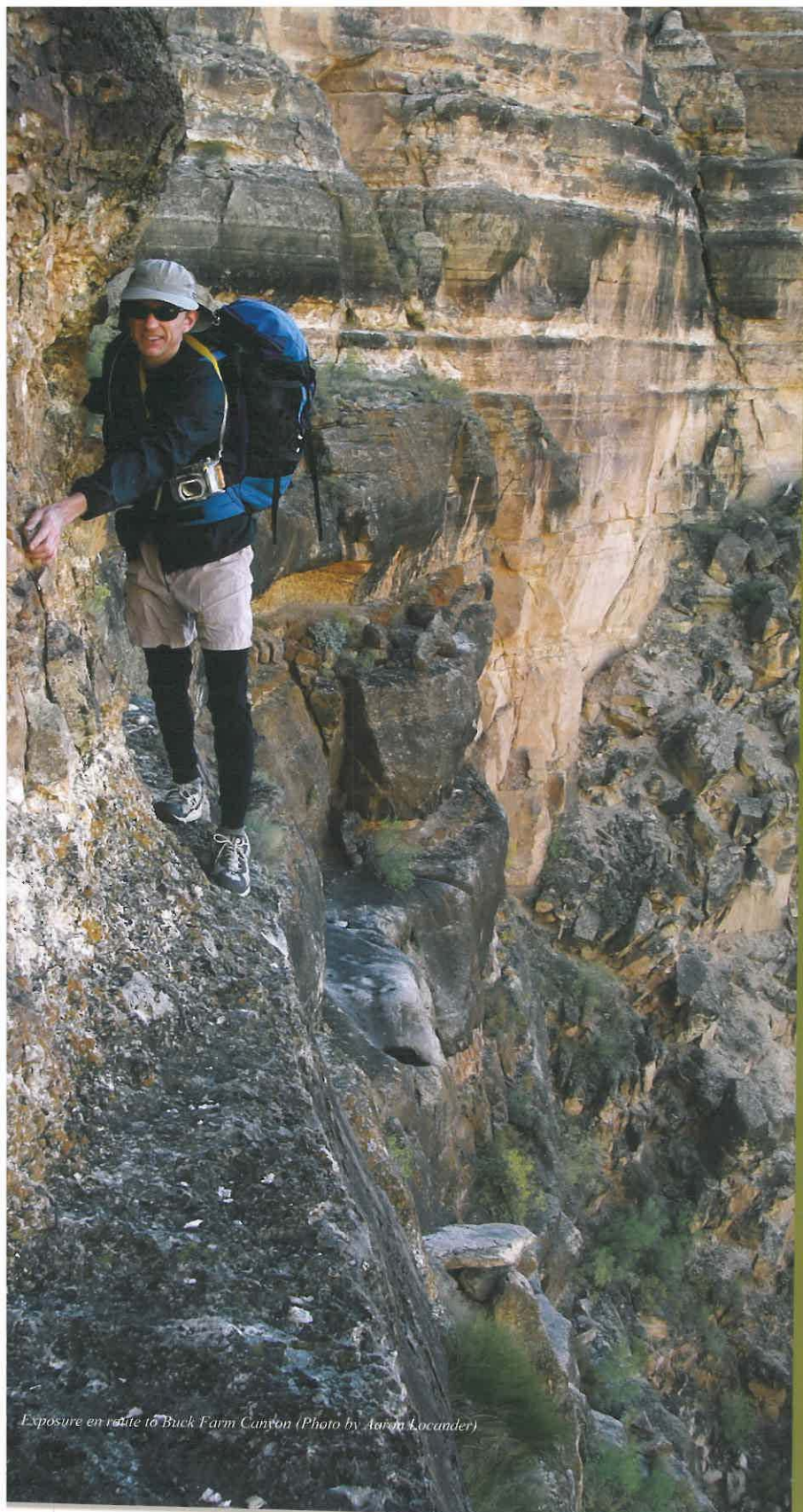
Canyon	Hike Number	Rating	Time Needed	Longest Rappel <sup>1</sup>	Author's Rating	Page
Trinity Creek	36	3A VI	3 – 5 days	70'	★★★	307
Tuckup Canyon	60	1A VI	2 – 4 days	N/A	★★★★★	453
Twentynine Mile Canyon	13	3B V	1 – 2 days	50'	★★★★★	183
Twin Spring Canyon	63	1A VI	3 – 5 days	N/A	★★	477
Vishnu Creek	27	2B R VI	2 – 4 days	N/A	★★★	267
Twin Key Canyon	63	3B VI	3 – 5 days	60'	★★★	477
Waterhole Canyon (LCR Tributary)	21	3B IV	6 – 10 hours	150'	★★	225
Water Holes Canyon	1	3B III	6 – 14 hours	320'	★★★★	131
Whispering Falls Canyon	51, 52	3B VI	4 – 8 days	170'	★★★★★	401
Willow Canyon	61	3B VI	2 – 4 days	70'	★★★	461

<sup>1</sup>Note: The longest rappel distance may not represent the amount of rope needed due to the fact that the anchor point may be some distance back from the edge.



*Water pockets below Fishtail Mesa*





*Exposure en route to Buck Farm Canyon (Photo by Aaron Locander)*

## Dangers

The author assumes no responsibility for accidents, injury or death incurred as a result of the use or misuse of information contained in this book. Canyoneering contains inherent risks which no amount of care, caution or expertise can eliminate. This book probably contains errors and is no substitute for topographic maps, route-finding skill, compass, physical condition, technical proficiency or good judgment. Every hiker must assume responsibility for his or her own safety and survival.

*"Don't let your ego exceed your ability."*

— Rik Hustler

*"Death is an unforgiving tutor."*

— Mike Chase

*"The desert is a land of surprise, some of them terrible surprises.  
Terrible as derived from terror."*

— Edward Abbey

In no other sport does the participant risk injury or death by the contrary forces of: dehydration and drowning, heat stroke and hypothermia **all in the same day**. What starts as a fun and lighthearted romp through a canyon can quickly become a struggle for survival for the untrained and ill prepared.

In the depths of a canyon, far from civilization, a minor injury can create major problems for you and your group. This is particularly true in the Grand Canyon where the rugged terrain could significantly hamper rescue. If you or someone in your group becomes injured, it will be difficult for a search and rescue team to find you, gain access render medical care, and get you out of the canyon. It is safe to assume that aid will not arrive quickly. In fact, rescue could take several days and even then, there is no guarantee of success. You must take responsibility for your own safety by being prepared. The section to follow outlines some of the dangers associated with canyoneering in general and the Grand Canyon in particular.

*"In nature there are neither rewards nor punishments — there are consequences."*

— Robert G. Ingersoll

### DEHYDRATION

In the desert, water is life. It is not always possible to rely on finding potable water as you hike, as many springs and streams flow only during certain times of the year and have flows that are unpredictable at best. Ask at the Backcountry Office about water availability for the area in which you will be traveling. The amount of water needed for a hike depends upon several factors including the duration and difficulty of the hike, the temperature of the hiking locale, the amount of shade available and the water needs of the individual. With strong exertion on a 100° F day, the human body may not be able to absorb enough water to stay hydrated. Drink lots of water at frequent intervals as you hike and carry more water than you think you will need.

Even if you are able to find water, sources may be contaminated with the protozoa giardia or cryptosporidium (from human or animal wastes) or may be highly alkaline or salty from minerals leached from surrounding soils. All water should be treated before drinking. Common treatment methods include:

- **Boiling:** Kills protozoa, but is very time and energy intensive. Few hikers use boiling as a treatment option, except perhaps when cooking.
- **Disinfectants:** Either iodine or chlorine may be used to disinfect water for drinking. They are lightweight and will kill protozoa, bacteria and viruses, but will not remove particulates, metals or pesticides and can add an unpleasant taste (a flavored drink mix helps). Iodine comes in tablet form or liquid resin. The author has shied away from chlorine in the past (usually administered by adding 1–2 drops of household bleach per quart of water), simply because the idea of drinking bleach sounds somewhat unappealing (chlorine can also produce small quantities of toxic by-products when mixed with humic matter in the water). It should be noted, however, that millions of Americans consume chlorinated water every day with no short term harm.
- **Ultraviolet (UV) Light:** UV light kills bacteria directly and is a chemical free means to purify water. Battery operated UV lights made for backpackers can sterilize a quart of water in about 90 seconds. They are most effective when the water source is clear and free of sediment. UV disinfection does not remove dissolved organic or inorganic compounds, or particulates in the water.
- **Filtering:** There are many brands of portable water filters available on the market. Good filters will remove protozoa, particulates and most bacteria without adding taste to the water, though they will do nothing for viruses (some filters, billed as water purifiers, also contain an iodine resin to kill these microorganisms). Filters will add weight to your pack and, depending on the model, can be somewhat time consuming to operate.

True to its name, the Colorado River (which means “ruddy” or “red” river) is often quite silty. This poses a challenge for those using water filters, since silt can cause them to quickly clog. The life of a filter can be extended by selecting the clearest water source available (potholes and streams may be preferable to river water when the Colorado is running brown), or collecting the water in a container and allowing it to settle overnight prior to filtering. Though I have not tried it myself, those with less patience might try stirring a little food grade alum into the collected water. Alum acts as a flocculant, allowing small particles to clump and settle more quickly.

Most canyoneers typically carry all water needed for day hikes and use a water filter, iodine or chlorine tablets for overnight trips.

### ***HYPONATREMIA***

Hypnatremia is an illness that mimics the early symptoms of heat exhaustion, but is actually the result of low sodium in the blood caused by drinking too much water, not eating enough salty foods, and loss of salt through sweating. Symptoms include nausea, vomiting, altered mental state, and frequent urination. The condition is most easily prevented by carrying and eating salty snacks as you hike and is a great rationalization to satisfy that craving for flaming hot cheese puffs.



## HEAT AND SUN

It should come as no surprise to learn that the Grand Canyon is a sunny, hot, dry, terrible place, inhospitable to those used to air conditioned comfort. Heat coupled with dehydration can lead to heat exhaustion, heat stroke and possibly death. Heat and sun are best dealt with in the planning stages of your hike. Choose a trip that is appropriate for the time of year. An easy stroll through a low elevation canyon in January can become a struggle for survival in July. During the summer months (all 6 of them) choose canyons that lie at higher elevations or have perennial water. Avoid hiking during the heat of the day. Other tips to beat the heat include drinking plenty of water, wearing light colored cotton clothing and a hat, or sitting at home in the air conditioned comfort of your living room with one of those umbrella drinks. If you should find yourself feeling overheated, sitting out the afternoon in the shade of a cottonwood tree or rock ledge and finishing the hike after dark is often a viable alternative to hiking yourself into a coma.

Heat acclimation is one of the best defenses against heat stress and is achieved by gradually increasing exposure and physical activity in hot weather. It's possible to acclimate to heat by exercising for two hours a day in a warm environment for 14 consecutive days, though even partial acclimatization will provide some benefits. Those who live in a warm climate and exercise regularly are likely partially acclimated to heat already. Those who live in cooler climates will be more susceptible to heat related injury and should take extra care when hiking during the warmer months.

Coupled with the heat is the very real chance of serious sunburn. The desert sun is very harsh and can cause a burn in a short period of time, even during the winter months. Do not use a hike as an opportunity to work on your tan. Wear sunscreen with a high Sun Protection Factor (SPF) and/or a long sleeved shirt and a wide brimmed hat (and possibly a bandana to cover your neck) to prevent burning.

## COLD

Hypothermia occurs when the body loses more heat than it can generate. When a body is exposed to cold temperatures or a cool, wet environment for prolonged periods, such as the conditions found in a canyon where pools of water may receive little sunlight, the body's control mechanisms may fail to keep body temperature at a normal level. Symptoms of hypothermia include uncontrolled shivering and the "umbles" (mumbling, bumbling, and stumbling). If the loss of body heat is not stopped and body temperature is allowed to fall below 90°F, the condition can become critical and potentially fatal.

The best way to avoid hypothermia is to choose a canyon that is appropriate for the time of year and, if conditions warrant, to carry a wetsuit or drysuit. Neoprene socks provide the best means to keep your feet warm, and are recommended whenever a considerable amount of wading is required, even when the canyon is not particularly cold. It is also a good idea to carry a set of warm clothes in a waterproof bag or container to keep them dry.

*"It's a dangerous business going out your front door."*

— J. R. R. Tolkien, *The Fellowship of the Ring*



## CREATURES

It has been said that everything in the desert either “bites, stabs, sticks, stings or stinks”. The desert flora and fauna in Arizona tend to be as uncongenial as the harsh environment that they inhabit. It is important to remember, however, that these creatures lead busy, important lives in an unforgiving landscape. It is you who are the uninvited guest in their ever dwindling desert home – please show some respect.

**Rattlesnakes:** These beautiful highly adapted creatures exist throughout the Grand Canyon region and include the pink Grand Canyon Rattlesnake (*Crotalus viridis abyssus*) which is found nowhere else in the world. Rattlesnakes, though venomous, are non-aggressive, shy and pose little danger to the attentive hiker unless provoked. Although there are approximately 8,000 poisonous snake bites a year in the United States, only 0.2% are fatal. A 1988 study at the University of Southern California Medical Center found that nearly 100% of snake bites occur as the animal strikes in self defense, 44% as a result of accidental contact, such as stepping on the animal and more than 55% of bites were due to the victims intentionally grabbing or handling the creatures. As tempting as some might find it to be, individuals should refrain from interacting with poisonous snakes. It also helps to visually scan the terrain ahead of you to avoid stepping on a basking serpent and avoid using handholds that are out of your range of sight when climbing. Current medical literature suggests that commercial snake bite kits are next to useless and that the old ‘cut and suck’ method of venom removal does more harm than good. In the unlikely (and unlucky) event that you have been bitten by a poisonous snake, remember that 40% of the time no venom is injected. Options at that point include: having a friend go for help, or whipping out your satellite phone that you have been carrying for just such an occasion. Do not kill the snake under the assumption that it will aid the medical facility in your treatment, it will not. It will only expose you to another strike. All rattlesnake bites in the U.S. are treated with the same antivenin. Rattlesnake venom is



unlikely to kill a full grown human, so relax, get help and think of how you'll entertain your bar buddies for years to come with tales of your snake bite exploits.

**Gila Monsters:** These slow moving reptiles are one of only two species of venomous lizards (its cousin the Mexican Beaded Lizard is the other). Rather than injecting venom through hollow fangs like venomous snakes, Gilas have enlarged, grooved teeth in their lower jaw. When they



bite, their powerful jaws chew the venom in through capillary action along the grooves in these teeth. Gila monster venom is about as toxic as that of a western diamondback rattlesnake. However, a relatively small amount of venom is typically introduced in a Gila bite. Unless you deliberately try to handle the animal, you are probably safe from this non-aggressive creature.

*"I think a man who is fool enough to get bitten by a Gila Monster ought to die. The creature is so sluggish and slow of movement that the victim of its bite is compelled to help largely in order to get bitten."*

—Dr. Ward, 1899

**Scorpions:** The scorpion is a nocturnal arthropod that feeds mainly on spiders and insects. Its tail is usually curved upward and forward over the back and contains a venomous stinger. The species of scorpions that live in Arizona cannot inject a sufficient quantity of venom to kill an adult human, though their sting can be quite painful. Certain individuals, however, may be allergic to the venom and can experience life threatening side effects when stung (as occurs with bee stings). When camping out in the desert it is not a bad idea to shake out shoes and clothing that have been left out overnight to make sure they are free from scorpions.

**Squirrels:** No joke! Though they are unlikely to leap up and tear out your jugular like the killer rabbit in Monty Python and the Holy Grail, rock squirrels are the leading cause of animal bites at the Grand Canyon. These rodents frequent all of the popular tourist destinations, overlooks and campsites in the hopes of obtaining a tasty handout. They are so acclimated to people that they often exhibit no fear and will come right up to you, sit up cutely and beg for a peanut or whatever you happen to be eating at the time. They will even tenderly and gently take the morsel directly out of your hand ... that is, they might, if they don't decide to gnaw your finger to the bone with their razor sharp, bacteria infested incisors first. Despite their adorable appearance, squirrels are not tame; they are wild animals possessing unpredictable behavior. Do not attempt to interact with them, and never, ever feed them.

**Ticks:** Ticks are small arachnids that feed on the blood of mammals, birds, and occasionally reptiles and amphibians. They are often found in areas with tall grass or dense



shrubs where they will wait and grab on to a passing host. Once on their victim they may wander around for a while before settling down at a tender spot and inserting their cutting mandibles and feeding tube into the skin.

The main danger that ticks pose to humans lies in their capability to transmit diseases. Lyme disease is the most common tick-borne infectious disease in the United States, but is fortunately quite rare in Arizona. Though also rare, in the early 1970s a significant outbreak of tick-borne relapsing fever occurred on the North Rim of the Grand Canyon. Symptoms of relapsing fever include recurring high fever with severe headache, accelerated heart beat, low back pain, and occasionally nausea and vomiting.

Tick bites can be minimized by avoiding grassy and brushy areas, wearing light-colored clothing (which allows you to see them more easily) and by completing a quick body and clothing scan a few times a day to make certain that a tick hasn't targeted you for a host. If a tick is found unattached it can simply be brushed (or flicked) off. Insect repellants containing DEET can also act as a deterrent. If you are bitten by a tick use a pair of tweezers to grasp it as close to the skin as possible and slowly pull it out. Try not to squeeze the tick's body as this could force disease organisms into the wound. Should the mouthparts remain embedded in your skin, treat the bite with an antiseptic and/or wash with soap and water to prevent secondary infection.

## PLANTS

If anything, flora that has adapted to life in the desert is even less hospitable than its fauna. The four types of plants that typically pose the most troublesome for canyoneers are agave, prickly pear cactus, New Mexico locust and poison ivy.

Agaves are succulents with bluish green, triangular leaves which taper to an extremely sharp point and often have teeth on the margins. Leaves grow from a central location to form a large rosette. The points are sharp enough to penetrate boot leather and seem to slide effortlessly into your skin (sometimes breaking off after doing so). The best way to protect yourself is to simply watch where you're going.

The same advice applies to prickly pear cactus; however, the main danger is not the needles that protrude from the cactus pads, but the tiny, hair-like spines, called glochids that surround them. Brushing against a prickly pear pad can imbed hundreds of these minute spines in your skin causing pain and discomfort. Tweezers or tape applied sticky side down, are the best means of removing these spines.

While cacti may be the most conspicuous of the floral hazards, New Mexico locust is much harder to avoid. New Mexico locust appears as a thorny shrub or small thorny tree





and has bluish green, 1.5-inch long, elliptical leaves that grow in pairs of 7 to 10. Oh ... and it's covered with sharp thorns. The plant tends to grow in thickets across unused trails and can prove difficult to avoid. Wearing thick, long pants is perhaps the only means of protecting yourself from locust. If wearing long pants in hot weather lacks appeal, you may as well resign yourself to being shredded by this plant – plunge ahead; you'll heal in no time.

The other plant to be wary of is poison ivy, which fortunately is extremely rare within Grand Canyon (the only places I've seen it are at Vasey's Paradise, in Muav Canyon and at Deer Creek on the hiker's trail from the river to the top of the slot). Poison ivy is a member of the cashew or sumac family. It appears as a small shrub, growing to 2 feet in height or as an ascending vine. Leaves grow in groups of three up to 3 inches in length and can vary from oval and smooth to notched or toothed. Poison ivy typically grows in wet areas with good soil in canyons, ravines and disturbed areas at elevations between 3,000 and 8,000 feet in Arizona. All parts of the poison ivy plant contain oil that can cause an itchy rash. If you are exposed to the plant, washing yourself immediately in cold water can help mitigate some of the symptoms.

## NAVIGATION

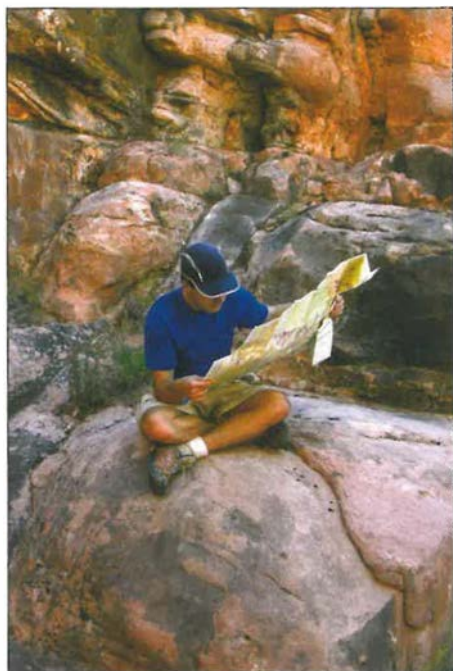
Many of the hikes in this book require a certain amount of off-trail cross-country travel, often over rugged terrain. The ability to read a map and use a compass or Global Positioning System (GPS) is critical to successfully navigate the entry and exit routes of these canyons. Typically, once you've found your way into the correct drainage, navigation within a canyon becomes a trivial matter of simply heading downstream.

*"If you don't know where you're going, you'll end up somewhere else."*

— Alfred Adler

Some suggestions for successful cross-country navigation:

- Carry a map and compass on every single hike and know how to use them. You can practice your map skills on each hike by matching up the elevation lines with the geography around you. Over time, this skill will become second nature and it will become possible to visualize the layout of the topography, the steepness of the terrain, potential canyon entry/exit and escape routes just by studying a map. This is also the best way to discover new canyons if you are so inclined.
- Take the time to personally investigate and identify the entry and exit routes prior to actually entering the canyon. It may feel like a waste of a day to familiarize yourself





with these parts of the hike without actually doing any canyoneering, however, by reducing or eliminating the risk, time and frustration associated with becoming lost you will greatly increase your chances of having a safe, successful and enjoyable trip.

- Verify your route information prior to entering the canyon. Check with others who may have done the canyon recently for updates.
- Carry and know how to use a Global Positioning System (GPS). Understand that there are limitations to the device and that it should only be used as a navigational aid and not as your sole means of route-finding or survival. Batteries can fail, units can be dropped and broken, and satellite signals can be faint to non-existent (particularly in a narrow canyon). A GPS does not replace basic map and compass skills, or common sense.

A GPS is a combination of a receiver and a computer. It is designed to receive radio signals from satellites in Earth's orbit, which it then uses to compute its location on the Earth's surface. To do this, it needs to receive signals from at least three satellites. The primary output from a GPS is a number that references a coordinate system – laid out like a grid over the globe. Once the unit computes its location, if you are moving, it can calculate and display the speed and direction in which you are traveling. If you enter another coordinate position in the form of a waypoint, the GPS can tell you how far away from that location you are and the direction you need to travel in a straight line in order to get there. Of course, there is no guarantee that there aren't any physical obstacles that prevent straight line travel. The units will also allow you to mark locations you've visited or track the path you are traveling. Are these coordinates useful in and of themselves? Not really. If you are lost in the wilderness, the numeric value displayed by the GPS will not tell you where you are and how to get back home. The real utility of a GPS comes into play when it is used in conjunction with a map that has a coordinate system displayed along its margins (USGS Topographical Maps for example). A GPS used in conjunction with these maps provides a powerful tool for navigating complex routes.

- Pay attention as you walk. Identify landmarks that could enable you to retrace your steps should you become lost. Turn around occasionally to see what the terrain looks like facing the other direction. Do not blindly follow others in your group, even if they have been to the canyon before. Take the initiative to memorize the entry route, or, if the leader really does know where they are going, carry a map and follow along. In technical canyoneering, backtracking is usually not possible after pulling your rope at the first rappel.
- If you suspect you are off the route – STOP! Turn around, and retrace your steps to the last recognizable point or throw in the towel and return to your vehicle. The absolute worst thing you can do is plod stubbornly along. Beginning from a known location, fan out, scouting ahead a short distance until the correct route is found. When in doubt, turn around! In terms of navigation, the most dangerous portion of a long canyon hike occurs on the exit, when backtracking becomes impossible. Extra care must be taken on the exit route to ensure that the correct path is followed. Fatigue and carelessness can lead to a mistake which can prove to be inconvenient, unpleasant or even fatal. Every year people die as a result of becoming lost in the Grand Canyon.

The above list is not exhaustive, but provides a starting point for these hikes. Those wishing to learn more about navigational skills may want to contact a local orienteering club. Additional information is available through the US Orienteering Federation:

<http://orienteeringusa.org>

## CONDITIONING

Grand Canyon hiking is a physically demanding activity. The better condition you are in, the more enjoyable the hike, the farther you'll be able to walk, the more you'll be able to see – all with less chance of damaging muscles or joints. A fit individual may also be more inclined to carry that extra piece of safety gear that may rarely be needed, but can prove to be a life saver in certain situations. Fit hikers are also able to travel more quickly over rough terrain, increasing the chance of self rescue if the trip does not go as planned.

It should be noted that all of the canyons described in this book require a high degree of physical exertion. Many of the trips are physically punishing. Do not underestimate the role fitness plays in the success of the hike.

*"Those who do not find time for exercise will have to find time for illness."*

— Earl of Derby

## HIKING INJURIES

Most hiking injuries are due to either twists/sprains or repetitive use stresses, which usually manifest themselves in the joints. The risks of these injuries may be lessened through proper conditioning, proper foot placement and care.

**Twists/Strains:** All canyon hikes require walking on loose, rocky soil, slippery rocks and boulders. Rocks that shift underfoot can put your ankle at an awkward angle. Putting your full weight on your ankle when it is in this position can cause a twist, sprain or break (this is only aggravated by the additional load associated with a full pack). A good habit to cultivate is to become accustomed to removing all weight from the foot that has shifted into a potentially injurious position by quickly shifting your weight to the other foot. While this may result in a stumble, it will help protect the joints that are vital to the hike.

Many of the canyons require walking, rock-hopping and climbing on wet, polished rock. Slick conditions greatly increase the chance of slipping, falling and injury. Shoes that have ankle protection and a soft, sticky, rubber sole that provides traction, even when wet, will greatly improve safety and reduce the risk of twists and strains.

**Stress Injuries:** Repetitive activities and overuse of a body part can cause a variety of injuries loosely grouped into the category of stress injuries. Walking for miles certainly qualifies as a repetitive activity. Hiking steep hills carrying a heavy pack can quickly cause knees or feet to display symptoms of overuse. Part of the problem seems to stem from technique used during descents. Many hikers tend to stomp off downhill with little regard for the stresses caused by dropping their full weight (as well as that of a full pack) down on their knees. It is easy to imagine the cumulative effects of such an activity as the joints absorb the full impact of each step. Instead, the hiker should perform controlled decent in which the body weight is lowered by the leg in contact with the ground. This technique requires slightly more work by the muscles, particularly by the quadriceps, and is a little slower than stomping away, but will reduce injury and stress (and build up stronger leg

muscles for the next hike). Hikers can also reduce joint stress by reducing the amount of weight they are carrying and by using a lightweight, collapsible walking stick.

**Blisters:** Walking in warm weather on rocks whose temperature can exceed 120°F results in hot feet and can lead to the formation of blisters. The obvious solution is to apply moleskin when you first start feeling a hot spot forming. Unfortunately, moleskin will not stick effectively in hot, damp conditions and tends to slide off of the affected area while walking. One solution to this problem is to first apply tincture of benzoin, a strong smelling, sap-like liquid that turns tacky as it dries. This tackiness will aid in holding the moleskin in place as you hike.

Many hikers find that duct tape works better than moleskin for blister prevention. High quality duct tape is very sticky and has a slippery outer surface that reduces friction as you hike. It conforms to the shape of the foot and can be used anywhere, even between the toes.

## WEATHER

As if the broiling temperatures and searing radiation from the sun weren't enough, Arizona also boasts summer monsoons that can result in thunder, lightning, windblown dust, and occasionally, torrential downpours. The monsoon thunderstorms in Arizona tend to occur between July and September. These storms are caused by rising warm air over the desert that creates a zone of low pressure that pulls up moisture from the Gulf of Mexico. Technically, it is considered a "monsoon day" when the average daily dew point is 55 degrees or higher. This moisture often brings afternoon thunderstorms with short torrential bursts of rain. Canyon hikes should be planned to safely accommodate this weather pattern.

**Lightning:** During the past 40 years, lightning has been the second greatest cause of storm-related deaths (after floods) in the United States. In monsoonal weather, plan your trip so that exposed ridges are avoided during the afternoon hours. Towering black clouds and the low rumble of distant thunder are not-so-subtle clues that it's time to turn around or seek shelter. Should you get caught in a thunderstorm, proceed from higher to lower elevations. Avoid wide-open ground; instead look for a dry ravine or other significant depression to reduce lightening strike risk. It's also best to avoid taking shelter under exposed ledges since small overhangs can allow arcs to cross the gap. Since water conducts electricity, wading or swimming are not recommended. To reduce the risk of electrocution, place a pack or other insulating material under your feet and squat with only your boots touching the ground until the storm has passed. Fortunately most summer storms in Arizona are short (rarely lasting more than an hour) so you will probably not be forced to remain in this uncomfortable position for long. Coincidentally, narrow canyons are one of the safest places to be with regards to lightning. Unfortunately, because of the rains that may accompany these storms, they are not a very good place to be due to . . .

**Flash Floods:** On August 12, 1997 twelve hikers were caught in a flash flood in a popular slot canyon in northern Arizona. Only one survived. It was later determined that the water that caused the flood fell as rain 14 miles away from the canyon in which they were hiking. This tragedy serves as a terrible example of the power of water in the narrow spaces through which canyoneers like to travel. Those who need periodic reminding of the danger water poses need only look around them in a narrow slot canyon. Not only did the

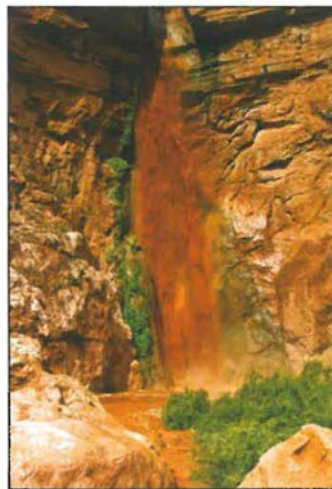
force of rushing water carve the canyon to begin with, but logs and branches wedged high above the canyon floor can provide a striking visual indication of past water levels.

Flash floods are influenced by many factors including the capability of the storm to produce heavy downpours within a short period of time and the size of the watershed that drains into the canyon. Bursts of heavy rain, such as those that occur with monsoonal thunderstorms, can overwhelm the ground's ability to absorb it. Runoff collects and is channeled into washes, gullies and canyons creating hazardous conditions. Flash flood risk is best addressed in the planning stages of the hike.

- Obtain a weather forecast prior to entering a canyon. Since forecasts are not 100% accurate, evaluate the weather throughout the day for signs of rain.
- Utilize topographic maps to determine how large of an area the canyon drains. Large drainages have the potential to gather and channel more rainfall. Through study of a map it may also be possible to identify potential escape routes and wide sections of canyon where flash flood dangers are reduced.
- Prior to entering the canyon, study the geography to get an idea of the soil composition and moisture content. Bare slick rock and rocky desert soils have little ability to absorb water. Forested areas with a considerable amount of ground cover, pine needles, thick leaves or soil tend to retain water, reducing runoff. Ground that is already saturated from recent rain will absorb less precipitation leaving more to flow along the surface.
- Determine the topography of the area surrounding the canyon. Water runs off steep mountain areas far more quickly than low, rolling hills.
- Though it probably goes without saying, narrow canyons pose a higher risk of flash floods than wide canyons. Not only is the same volume of water more powerful when channeled into a narrow constriction, a slot canyon offers fewer opportunities for escape.
- Look around as you hike to identify possible escape routes and areas of higher ground that could provide safety in the event of a flood.

Should you get caught in a thunderstorm within a canyon, hints of an increase in flash flood danger may include: thunder, heavy rain, a sudden increase in silt content or rise in water level in the stream, or a rumbling sound described as being similar to that of an approaching freight train. Get to higher ground if possible and sit out the flood until it is safe to continue. Do not try to outrun it. A flash flood moves much faster than you do.

Finally, be aware that nearly half of all flood deaths



*Deer Creek Falls before and after an hour of heavy rains. (Photos by Rich Rudow)*



are automobile related, occurring when motorists attempt to drive their vehicles across flooded roadways. To avoid becoming a statistic on the way to the canyon, never drive into a flooded area if the depth of the water is unknown. As little as 12 inches of running water can wash away most vehicles, including sport utility vehicles. Heed warning signs. If a road is barricaded, turn around and take another route, or concede defeat and return another day when weather conditions are more favorable. The canyon will still be there when you decide to return.

### **SWIFT WATER**

Rushing water possesses incredible power. The descent of swift water canyons requires specialized skills that are outside the scope of this book. Though several of the canyons in this book feature streams with perennial flows, none of them should be descended when swift water conditions are present. Evaluate water levels prior to entering the canyon to determine if the flow is within the ability of the group. Do not hesitate to retreat if conditions are unsuitable.

### **GROUPS**

Canyoneering is very much a team sport, a fact that comes not only with tremendous benefits, but also with additional responsibility and potential liabilities. Difficult canyons yield most easily to a team of canyoneers working together towards a common goal. Safety is increased when there are multiple eyes looking out for weaknesses in an anchor system. A diverse group can bring a broad range of skills that makes the competency of the group much more than the sum of the individual members. At the same time a group is only as strong as the weakest link and the sport is such that the efforts of the most competent and experienced group can be hampered when a single individual runs into troubles. Many of these difficulties can be addressed in the planning stages of the trip.

*"One man alone can be pretty dumb sometimes, but for real bona fide stupidity, there ain't nothin' can beat teamwork."*

— Edward Abbey

- Limit the size of the group. Small groups move faster and can negotiate technical challenges more efficiently than large ones – they also reduce the impact on the canyon and can help preserve the wilderness experience. The maximum size of the group will depend upon the canyon and the overall experience level of the members. For most canyons, a group size of six or fewer is recommended. Never go canyoneering alone.
- Choose the canyon to fit the experience level, fitness, and skill set of the group, or conversely, choose the group to fit the challenges of the canyon. Don't put the team at risk by choosing a trip beyond their ability.
- Take the time of year into consideration. A fun splash through a wet canyon in July can be a struggle to stave off hypothermia in February. For cold water canyons, each member of the group will need to own a wet or drysuit.
- Realize you are not in a vacuum – you are part of a group. Assist less experienced members where needed. If time allows, pass on knowledge that allows them to increase their skill level.
- Prior to every canyon perform a pre-descent gear check. Make sure each member of

# DANGERS

the group has the equipment necessary to safely descend the canyon. Though weight is always an issue, it can't hurt to carry redundant gear for those items deemed critical to complete the canyon.

## ***RAPPELLING DANGERS***

As with any activity that involves differences in elevation, gravity plays an important and sometimes dangerous role in canyoneering. Hazards come in two obvious forms: falling and/or having something fall on top of you.

- **Rock Fall Dangers:** Though geological processes can cause rocks to fall into a canyon from the rim, these events are relatively rare and in any case are not within your ability to control. A more common, and preventable source of rock falls are the activities of other members of the group. Limit movement around the edges of drops and protect your head by wearing a helmet at all times in a canyon.
- **Falling:** In canyoneering there is often a lot of activity that occurs at the edge of cliffs. This is typically where anchors are set, webbing is placed and people rig rope for the rappel. Reduce the chance of a fall by using a sling or cow's tail to connect your harness to a secure anchor when in the vicinity of a drop-off.
- **Anchor Failure:** Anchor failure can be caused by high and/or unequalized forces, shock loading, poor choice of an anchor or when the anchor is loaded in an unanticipated direction. Choose a secure anchor for every rappel. If there are any uncertainties about the strength of an anchor, back it up by tying it in to another anchor or a person (body back up). Inspect all existing anchors and replace old webbing.



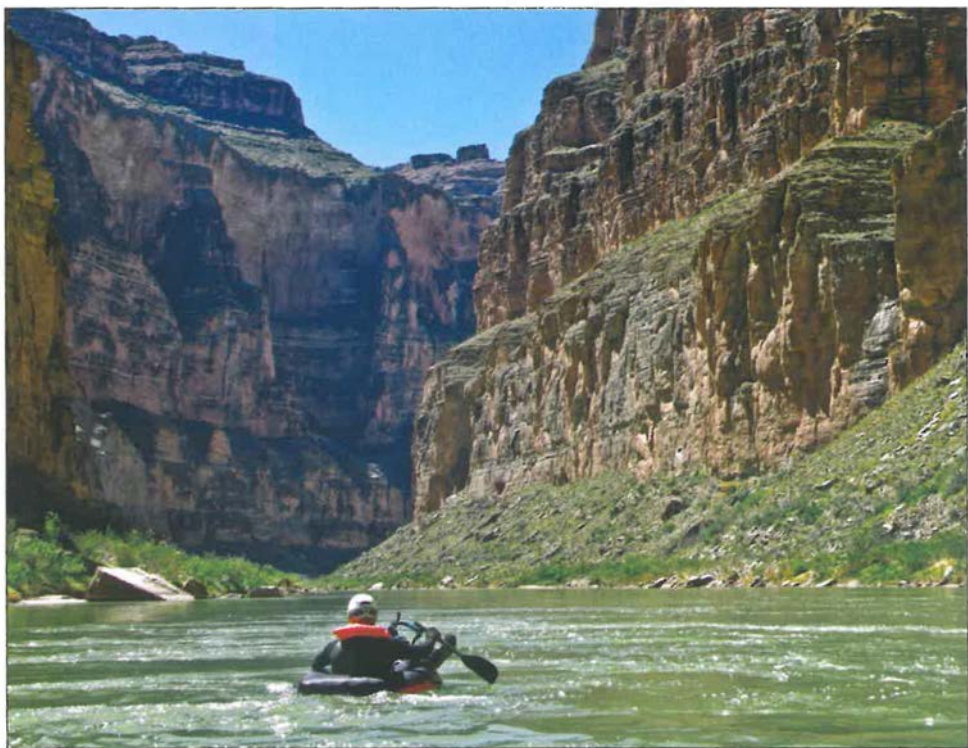
- **Equipment Failure:** A fall can also be caused by the failure of load bearing equipment. Regularly inspect the equipment to which you trust your life (especially rope) and replace if worn. Use good rope management practices to prevent unnecessary wear and tear.
- **Brain Failure:** Remarkable as it may seem, a leading cause of climbing deaths can be attributed to rappelling in a safe and controlled fashion right off the end of the rope. No doubt, there are numerous creative ways to be hurt or killed while canyoning that could be easily prevented with a little forethought. Put the grey matter to work. Think about what you are doing at every obstacle and utilize others in the group to provide a second opinion. Be vigilant at all times.

*"Gravity is a contributing factor in nearly 73 percent of all accidents involving falling objects."*

— Dave Barry

### **PACKRAFTING DANGERS**

Some dangers are stealthy and slow to materialize, creeping up on the unsuspecting hiker over time. Dehydration and heat exhaustion are examples of slow moving hazards. Other dangers strike quickly and without warning. One minute everything is fine, the next you're locked in a struggle for survival. The river poses dangers of the latter type. It may come as a surprise, given the many images and accounts of the Colorado River that highlight its excitement and danger, that in actuality much of the river is rather flat, calm





and ... dare I say ... uneventful. While this lack of eventfulness allows the use of small packrafts for river travel, it also presents a danger in itself by serving to lull one into a false sense of security. This is particularly insidious for the reason that when things do go wrong, they tend to go wrong very quickly. It's best to mitigate as many of these risks as possible in the planning and preparation stages of the trip, rather than attempting to react to them at the time they occur.

If the trip involves the use of packrafts, study Colorado River rafting guides and/or USGS topographic maps prior to a trip to identify the locations of any rapids along your route. Three popular river guides on the market include: *The Colorado River in Grand Canyon* by Larry Stevens, *Grand Canyon River Guide* by Buzz Belknap and Loie Belknap Evans, and *Guide to the Colorado River in the Grand Canyon* by Tom Martin. All of the most significant rapids will be shown on these maps, though they may not reveal some of the smaller riffles that could present difficulty for a packraft. Plan on portaging every rapid that has a formal name. Rapids that are large enough to have been designated with a name are unfailingly too large to negotiate in a packraft. Smaller rapids and riffles should also be identified and a provisional plan developed to negotiate them. Where portaging is necessary, maps can also assist in determining the best side of the river on which to walk. Rapids are most commonly found at the mouths of large tributary drainages of the Colorado River where boulders, rocks, sediment and sand have been deposited in the form of debris fans. In addition to constricting the river to form rapids, these debris fans often create wide, flat beach areas. These beaches usually make the best route to portage around a rapid and are found on the same side of the river as the drainage that deposited them. In cases where no beach exists, the best side to portage will depend upon local geography and the shape of the river channel. Where it may not be obvious, I've tried to identify the best side on which to portage within the description of each hike requiring a packraft.





River runners that might be encountered during your trip are another good source of information. Experienced river guides can be quite knowledgeable and may be able to pass along valuable information regarding conditions downstream. They may also be used to provide assistance in the event of an emergency, such as catastrophic raft failure or loss.

In addition to the fact that regulations require their use, the single most important piece of safety equipment while boating on the Colorado River is a properly fitted, Coast Guard approved Type I, III or V Personal Flotation Device (PFD) or Life Vest. A good PFD is designed to keep your head and mouth out of the water even when unconscious and will significantly increase the likelihood of survival in the event of an unintended swim. Any water with a temperature of less than 65°F (20°C) can adversely affect a person in the water. The Colorado River with its significantly colder temperatures can quickly lead to cold incapacitation and hypothermia. The body's response to cold water immersion follows several distinct stages:

- **Stage 1 – Cold Shock Response:** This is the natural gasping response everyone has when entering cold water. This gasping response can lead to an accidental inhalation of water. Wearing a life jacket will help keep your head out of the water and will greatly reduce the chances of water inhalation.
- **Stage 2 – Cold Incapacitation:** Cold water can quickly numb arms and legs and limit the physical movement a person is capable of performing. The longer you are in the water, the more difficult it becomes to swim. Those who believe it possible to put on the PFD after they've fallen into the water will find this task to be significantly more difficult once cold incapacitation sets in.
- **Stage 3 – Hypothermia:** An extreme loss of body heat results in hypothermia, a condition in which the victim suffers from uncontrollable shivering and loss of movement. While it is possible to survive a hypothermic state for quite some time, it is not possible to swim in such a condition.

With water temperatures in the Colorado River in the 40s (F) it does not take much time for the body to progress through these stages. The use of a life jacket will greatly increase the chance for survival and rescue.

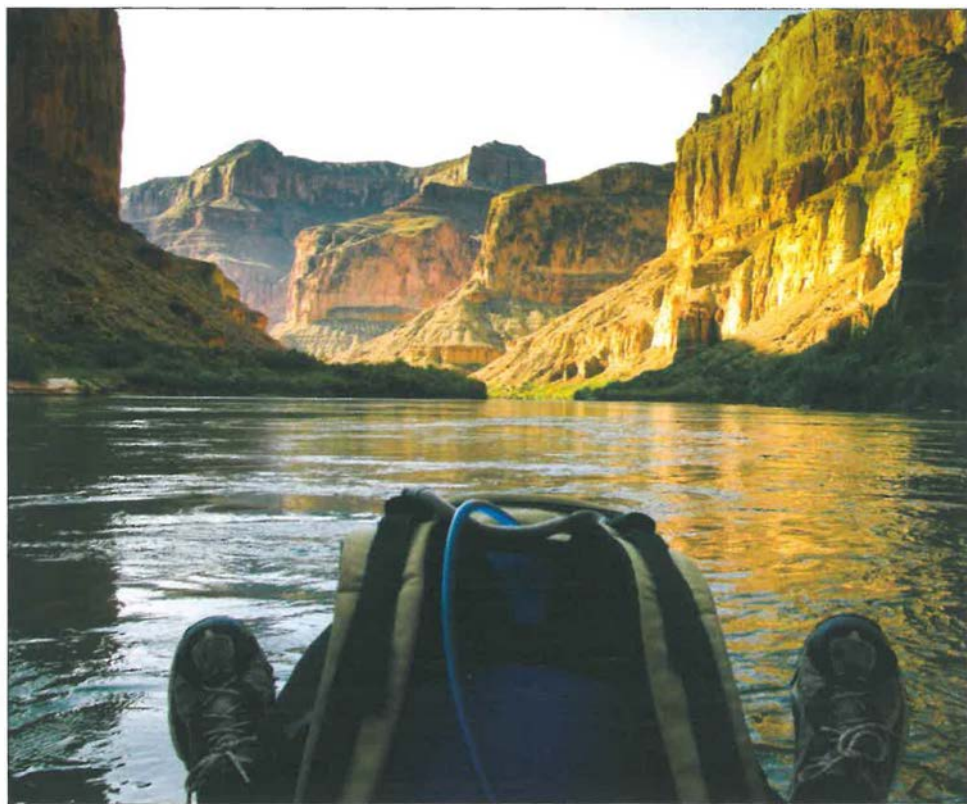
The effects of cold water can be mitigated by wearing a wetsuit (or drysuit) and neoprene socks while on the river. A wetsuit will provide warmth and added floatation should you flip your boat and will greatly increase the amount of time your body is able to function in the water before hypothermia sets in. Since a wetsuit is required for many of the canyons described in this book, it may be an item already in the canyoneer's possession. Even if you never capsize, a wetsuit will make the voyage more pleasurable. Due to their small and lightweight design, packrafts tend to ride very close to the surface of the water. One consequence of this design is that small waves and riffles tend to swamp the boat, leaving a cold puddle of water in which to sit. A wetsuit will help keep your butt warm.

Another strategy to keep the hindquarters from freezing involves the use of an air mattress or closed cell foam pad to cushion the bottom of the boat. This offers the dual advantages of putting some insulating air between your butt and the river, in addition to keeping your posterior out of the inevitable puddle. The downsides are that a pad will raise your center of gravity slightly, making the raft less stable. It also affords an opportunity for an additional piece of gear to become lost should you capsize.

As with a wetsuit, a helmet may also already be in the canyoneer's possession. Though not required by NPS rules, there is certainly no harm in putting on your helmet prior to venturing onto the water. In addition to the protection it will afford your head, it will also help retain a little heat on a cool day.

My final tip in terms of gear safety is to minimize cords and straps on your pack and on the raft that could become entangled with your body should the raft flip. Secure any ropes you are carrying inside your pack prior to loading it into the raft. Tuck away and/or cinch the straps on the pack as much as possible to keep them out of the way. Some rafts come with grab cords that run around the perimeter of the boat. These present a potential entanglement hazard and should be tied in a way to minimize slack in the cords or removed.

In *Packrafting! An Introduction and How-To Guide* by Roman Dial (currently the only book written about the topic) the author describes a 5-stage packrafting rating system that is intended to provide an indicator of difficulty along the lines of the standard whitewater rating system. Given that we'll be using packrafts to simply get from one point to another in the safest way possible, this rating system is overly complex for our needs. Thus, I've ranked the packrafting trips on a skill level scale of 1–3 corresponding to basic, intermediate and advanced (or easy, medium and hard). My suggestion for those new to packrafting is to start out with those trips ranked Skill Level 1 as a means to begin to develop a feel for the capabilities of the boat and to become familiar with the river. As you become more comfortable with the raft you can work your way up to the more difficult trips.



As mentioned above, all large rapids should always be portaged. In addition, novice packrafters should initially portage smaller rapids and sections of rough water until they gain experience and have a better understanding of the capabilities of the raft and have developed the ability to assess the river. Unfortunately, it is sometimes difficult to ascertain whether a rapid is safe to run from the vantage point of a packraft since you are sitting very low to the water. This low angle view makes it difficult to gauge conditions downstream. Fortunately, there are a few secondary indications of a rapids' power. If a rapid is loud, or has large jets of whitewater shooting into the air, it is likely too big to run in a packraft. Another clue is to examine the river below the rapid. If you cannot see the river, chances are that there is a significant drop in elevation and the section should be portaged.

Like canyoneering, packrafting should be approached as a group, as opposed to a solo activity, allowing team members to look out for one another, retrieve lost gear and assist swimmers safely ashore in the event of an upset. When navigating sections of rough water, the most experienced member of the group should go first and the second most experienced last. The role of the first person down is to ascertain whether the section can be run and if so, to establish the safest line of travel. Once the rough section has been navigated and a safe position attained, they should hold their place to the extent possible and be prepared to lend assistance to any subsequent team members should they wind up in the water. It should go without saying that the person in the water should be the first priority, with any lost gear being a distant second. The role of the last person through is to act as clean up, rendering support or retrieving lost gear as needed.

Once through a section of rough water, do not become complacent. In addition to large white capped waves, the energy generated by rapids is less obviously released in the form of hidden currents, eddies and whirlpools. The water just below a rapid, though it may look calm, can be turbulent. This is best addressed by remaining alert and by keeping your paddles in hand at the ready.

If you should flip or fall out of the raft and are in relatively calm water, grab your pack and/or raft if possible (in that order since the loss of a pack and its contents represents a greater danger than that of a raft) and swim towards shore. If you fall out of the raft in rapids, position your body so that you are on your back with your feet facing down river. Bend your knees and keep your feet up. This will keep your feet from being lodged or caught in the rocks and allows you to meet upcoming obstacles and use your legs to absorb some of the impact. Continue to ride out the rapids in this position and when calmer water appears swim for shore. Other packrafters can render assistance to a teammate in the water by paddling their boat over and allowing them to grab the stern (back) of the raft. The packrafter should then paddle towards shore while the person in the water assists by kicking.

### ***MAXIMIZE YOUR CHANCES OF SUCCESS***

Finally, there are a few simple, common sense strategies that can be used to stack the deck in your favor.

- Obtain training prior to entering a canyon. While a canyon can be a great place to refine your technical skills, it is not a good place to learn them the first time. A single bend in the rope is all that separates a Munter from a Clove Hitch, yet they perform very differently when weighted. It's far better to learn this difference in the comfort of

your living room than at the top (perhaps soon to be the bottom) of a 200-foot rappel. Perfect your knots at home so that they are second nature to tie. Practice rappelling in a controlled environment where a mistake won't leave you hanging for hours at the end of a rope. Attend a training course to learn canyon specific techniques or ask a more experienced friend to spend some time teaching you. Canyoneering isn't brain surgery, but having a few well chosen techniques at your disposal can significantly increase the safety of your trip.

- Tell someone where you are going, what you plan to do and when you plan to return. Leave a topographical map of the area in which you'll be hiking with them. Be sure to include the route you will be following. Do not deviate from your plan without notifying them, and if you indicate you will contact them once you are safely out of the canyon, be sure to do so. Should you fail to return, your absence should be reported to the Grand Canyon Communications Center at: 928-638-2477.
- Get an early start. The time it takes for a group to complete a canyon will depend on many factors and may differ significantly from the times of others and those provided in this book. Hiking at night will significantly slow or halt the progress of the group.
- Be aware that canyons are dynamic environments and can change dramatically with each new rainstorm or forest fire. There is no guarantee that the conditions described in this book will be the same as those you encounter during your descent. It can never hurt to carry more than the minimum gear required to descend a canyon. A spare rope, extra webbing, ascending gear, a spare descender, etc. may be used infrequently, but may prove to be invaluable if the trip doesn't go as planned.
- A key component to maximizing safety is to ensure options exist in the event of an unforeseen event. Canyoneering is an extremely committing activity. Once the rope has been pulled after descending the first drop, one key option, that of retreat, is eliminated. Incorporate backup plans in your planning process to ensure other options always exist.

*"If we do not succeed, then we run the risk of failure."*

— Dan Quayle

## EMERGENCIES

An emergency is defined as a serious situation or occurrence that happens unexpectedly and demands immediate action. Fatigue is not an emergency and neither are sore feet; these are predictable consequences of hiking in a rugged environment. With that said, actual emergencies do occasionally arise and when they do, they will require the backcountry traveler to accurately assess the situation and decide on the best course of action from the available options. Keep in mind that these options are substantially reduced for those traveling solo since there is no one to assist you if you become lost, ill, or injured.

*"One of the tests of leadership is the ability to recognize a problem before it becomes an emergency."*

— Arnold H. Glasow

If assistance is needed in an area with cell phone coverage it can be obtained by dialing 911 just as in much of the rest of the US. Unfortunately, cell phone reception is restricted to a few of the most highly touristed areas within Grand Canyon and will be



largely unavailable to the backcountry hiker. Within the depths of the Canyon itself, help may be obtained at the ranger stations located at Indian Garden, Phantom Ranch, and Cottonwood (staffed in summer only). There are also emergency phones at these ranger stations and along Corridor trails at the Bright Angel Trail rest houses, the junction of the South Kaibab and Tonto trails, and at Roaring Springs on the North Kaibab Trail. These phones are connected to the Park's 24-hour dispatch center.

If an emergency occurs in a more remote location of the Park the available options for assistance are reduced. If traveling in a group, often the best course of action is to send someone for help. The quickest means to assistance may not always be the nearest given some of the obstacles posed by the Canyon and may include a ranger station, your vehicle on the rim or a commercial raft trip along the river (which carry satellite phones). Those going for help should stick to trails or routes they know to avoid becoming lost or injured themselves and should avoid traveling alone if the group size permits. If a search for assistance is not a viable option it may be possible to signal for help using a whistle (three blasts in rapid succession is the signal for distress) or signal mirror. Obviously there is no guarantee of success using these methods. The creation of a fire as a signal is definitely not recommended given that the resulting conflagration could pose more danger than the emergency itself. Finally, assuming you've left your itinerary with a reliable friend at home, the option of making yourself as comfortable as possible and waiting for notification of the authorities when you fail to return presents itself. If possible, choose a spot where water and shade are available since it is safe to assume that aid will not arrive speedily.

With a scarcity of good options for rescue in the backcountry, more and more hikers have turned to satellite technology to provide a safety buffer in the form of a satellite phone or personal locator beacon. These devices send signals to orbiting satellites that then bounce the signal between themselves until it can be transmitted to a ground based receiver. In order to function, the devices require a direct line of sight between the transmitter and the satellite. For this reason a signal may be nonexistent or intermittent in areas where the sky is obstructed by high canyon walls and as the satellite's orbit brings it in and out of view.

The main advantages of a satellite phone over a locator beacon are the capability to provide specific information as to the exact nature of the emergency and the ability to engage in two-way communication. The more knowledge rescue personnel possess regarding the incident, the more effectively they will be able to respond. Locator beacons, on the other hand, are only able to transmit, and are currently limited to sending the equivalent of an electronic "SOS" along with the GPS coordinates of your position. The utility of these devices will be greatly improved once manufacturers begin including texting capabilities allowing the user to customize the content of their rescue signal to match the nature of the emergency. Satellite phones and locator beacons can be either bought or rented, though phones are considerably more expensive to both purchase and operate. Within the last few years the price of a personal locator beacon has fallen below \$100, with annual subscription service plans costing about the same amount.

The proliferation of personal locator beacons in recent years has caused some controversy due to their irresponsible or unintentional activation. Since the units provide no indication as to the nature or immediacy of the situation, search and rescue personnel

have no choice but to respond, in some cases only to find that no emergency exists. This has caused some responders to dub them the “Yuppie 911” since they generate a false sense of security in some individuals who rely on them as a means to explore terrain they would not otherwise have the experience, knowledge or endurance to tackle. Despite a few imprudent owners, the devices have proven to be effective and can provide an increased margin of safety for those willing to use them responsibly.

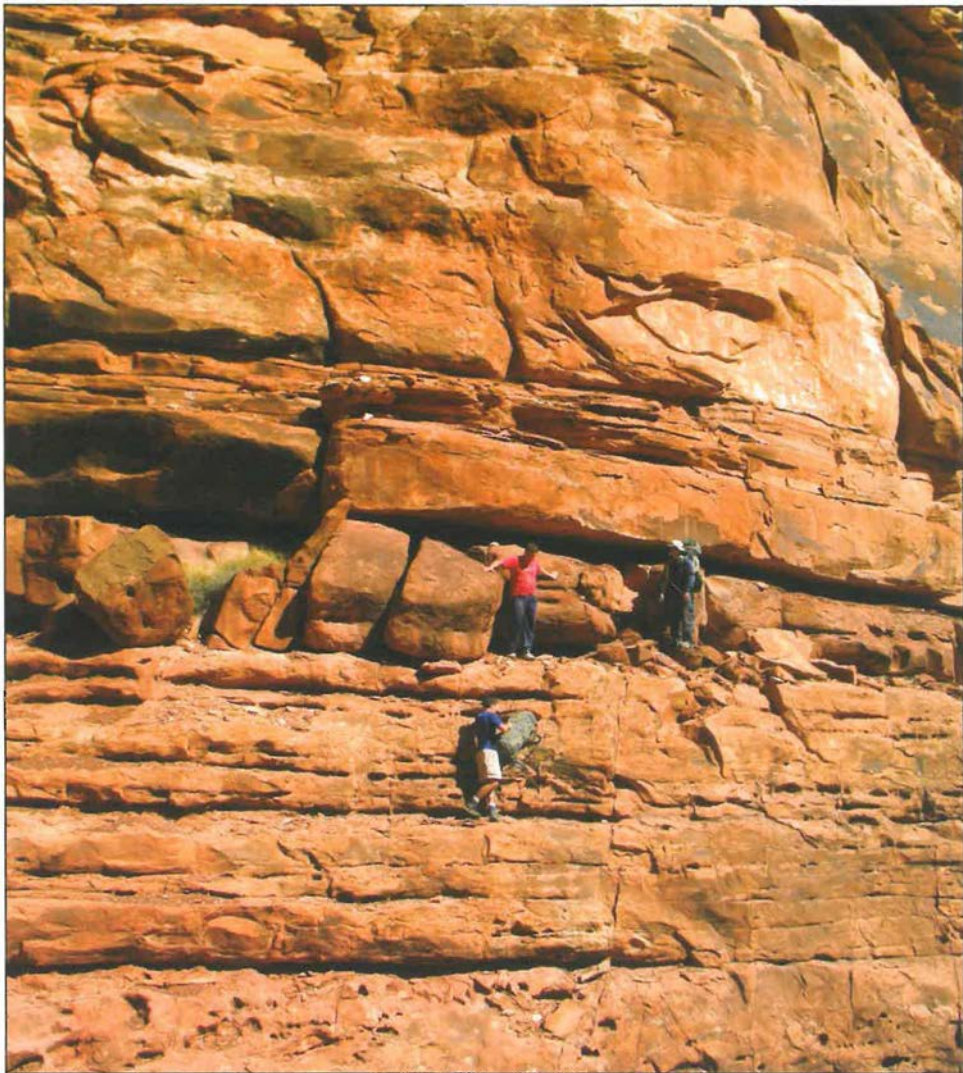
## **Emergency Phone Numbers:**

Dial 911 for Emergencies

Grand Canyon Communications Center Emergency Line: 928-638-2477

Satellite phone users should call: 928-638-7911

Coconino County Sheriff's Office: 928-774-4523 / 800-338-7888



*Exposed ledges en route to Buck Farm Canyon*





*View from Tuweap*

## Geologic History

A great deal of the planet's geologic history is revealed in the rock layers of the Grand Canyon making it perhaps the best place in the world to study geology. The reason is that the combined forces of deposition, erosion and uplift have exposed one of the most complete sequences of rock on the planet, representing a period of 1.84 billion years of the Earth's history. A basic knowledge of the Canyon's layers will not only add to the richness of the hiking experience, it is also invaluable in order to follow the trip descriptions described in this book since many routes are oriented in terms of the Canyon's stratigraphy.

The Grand Canyon lies on the Colorado Plateau, an area of approximately 130,000 square miles in northern Arizona centered on the Four Corners region of Utah, Colorado, Arizona and New Mexico. Approximately 5 million years ago, the entire Colorado Plateau was uplifted to an elevation of 5,000 to 13,000 feet. This type of uplift (termed epeirogenic uplift) did not involve deformation, and as a result the rock appears in horizontal layers in much the same order as they were laid down as sediments.

The Grand Canyon itself was formed by the Colorado River, which flows 1,450 miles from its headwaters in the Rocky Mountains of Colorado to the Gulf of California. The river created the Canyon from a combined process of both geologic uplift and down cutting (similar to the action of cutting a cake by both lifting the cake and bringing down the knife). The Grand Canyon had achieved its current depth and appearance by about 1.2 million years ago.

As downward cutting occurred, simultaneous lateral erosion of the canyon sides was also taking place through a series of freezing and thawing cycles and occasionally violent storms, which send flash floods down to gouge out narrow side canyons. Canyon down cutting has occurred at a rate approximately 10 times slower than the lateral erosion of the walls resulting in a canyon that ranges to about 1 mile in depth and ranging from 10 miles to 18 miles in width at its farthest point. The stair-stepped appearance of the Canyon is due to the fact that harder, erosion-resistant rocks such as the Kaibab Limestone, Coconino Sandstone and the Redwall Limestone have eroded into sheer cliffs while softer layers collapse into slopes like the Tonto Platform (Bright Angel Shale) and the Esplanade (Hermit Shale).

### LAYERS OF ROCK

The following mnemonic provides an easy way to remember the sequence (from rim to river) of primary rock layers in the Grand Canyon. Which one you choose to memorize likely depends on your purity of mind. Personally, I find the second much easier to recall.

Rock Layer	Mnemonic 1	Mnemonic 2
Kaibab Limestone.....	Know.....	Kissing
Toroweap Formation.....	The.....	Takes
Coconino Sandstone.....	Canyon's.....	Concentration
Hermit Shale.....	History.....	However
Supai Formation.....	Study.....	Sex
Redwall Limestone.....	Rocks.....	Requires
Muav Limestone.....	Made.....	More
Bright Angel Shale.....	By.....	Breath and
Tapeats Sandstone.....	Time.....	Tongue



The final primary layer is the Vishnu Schist which occurs at river level and is the oldest rock in the Canyon.

## The Stratigraphic Layers and Numeric Ages of Rocks Exposed in Grand Canyon

Set	Formation	Chronostratigraphic Age	Numeric Age
Layered Paleozoic Rocks	Kaibab Formation	Early Middle Permian	270 m.y.
	Toroweap Formation	Late Early Permian	273 m.y.
	Coconino Sandstone	Early Permian	275 m.y.
	Hermit Formation	Early Permian	280 m.y.
	Supai Group	Esplanade Sandstone	315 – 285 m.y.
		Wescogame Formation	
		Manakacha Formation	
		Watahomigi Formation	
	Surprise Canyon Formation	Late Mississippian	320 m.y.
	Redwall Limestone	Late Early – Middle Mississippian	340 m.y.
	Temple Butte Formation	Middle – Late Devonian	385 m.y.
Grand Canyon Supergroup Rocks	Tonto Group	Muav Limestone	515 m.y.
		Bright Angel Shale	530 m.y.
		Tapeats Sandstone	545 m.y.
Vishnu Basement Rocks	Sixtymile Formation	Neoproterozoic	≤ 740 m.y.
	Chuar Group	Neoproterozoic	770 – 760 m.y.
	Nankoweap Formation	Neoproterozoic	900 m.y.
	Unkar Group	Mesoproterozoic	1200 – 1100 m.y.
	Vishnu, Brahma, and Rama Schists; most plutonic rocks	Paleoproterozoic	1750 – 1680 m.y. (~1700 m.y.)
	Elves Chasm Pluton	Paleoproterozoic	1840 m.y.

m.y. = millions of years

**Kaibab Limestone:** This layer is the highest, and therefore youngest, formation in the Grand Canyon. It consists of yellowish-gray or tan, sandy limestone approximately 250 to 350 feet thick and forms sheer cliffs and ledges. The layer was deposited approximately 250 million years ago during the Middle Permian period as mud and sand by a shallow, ancient sea that cyclically encroached and retreated over the Grand Canyon region. Compressed by the great weight of overlying strata, the mud and sand hardened to rock. Much later, the overlying strata were stripped away, leaving the Kaibab Limestone as the cap rock in the Grand Canyon region. Common fossils that can be found in this layer include sponges, crinoids, brachiopods, corals, echinoids (sea urchins), and mollusks.

**Toroweap Formation:** This layer consists of red and yellow sandstone and shale-like, gray limestone interbedded with gypsum. It is 200 to 250 feet thick and forms cliffs, ledges and slopes. The layer was formed in much the same manner as the Kaibab Limestone from which it is often difficult to distinguish.

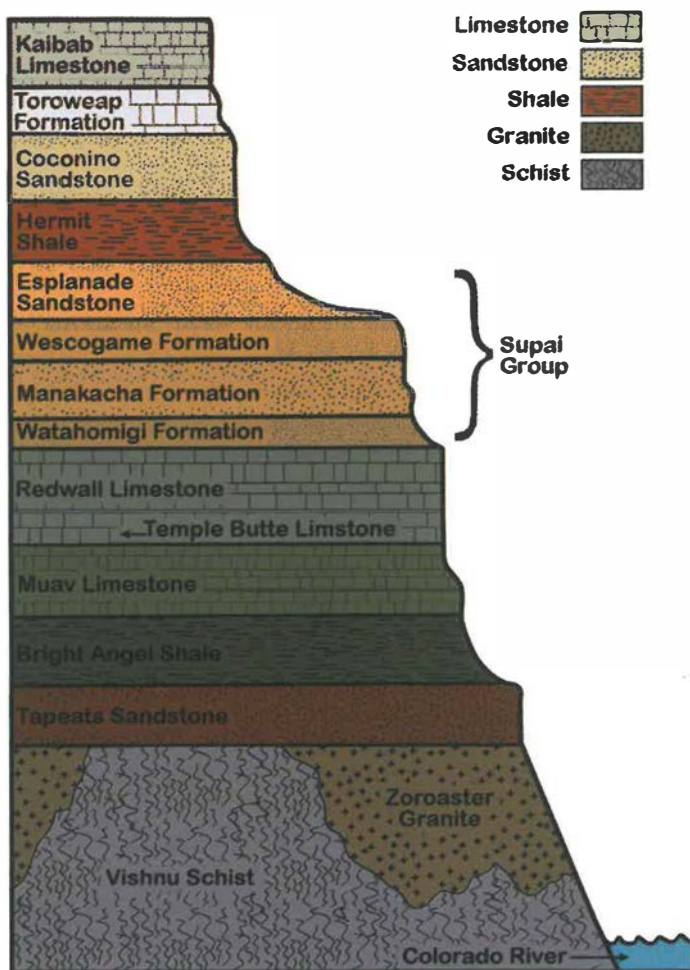
**Coconino Sandstone:** This layer was formed 275 million years ago as the area dried out and wind-blown sand dunes encroached. The Coconino is 375 to 650 feet thick with

# GRAND CANYON OVERVIEW

distinctive cross bedding where high-angle dunes have been petrified. The sandstone is white to cream in color and forms sheer vertical cliffs. Though no fossils occur in the Coconino, well preserved tracks of arthropods and reptiles have been found.

**Hermit Shale:** This layer is composed of soft, dark-red to brown shale, siltstone and mudstone. It is 160 to 175 feet thick and forms a gradual slope that is often hidden by trees, plants and sandstone blocks that have fallen from the overlying Coconino cliff. The layer was formed as iron oxide, mud and silt were deposited by freshwater streams 265 million years ago. Fossils of winged insects, cone-bearing plants, and ferns are found in this formation as well as tracks of amphibians and reptiles.

**Supai Formation:** This layer consists of tan to deep red siltstones and sandstones that reach a thickness of 600 to 700 feet, which has eroded to form step-like slopes interspersed with nearly vertical ledges and cliffs. It was formed approximately 285 million years ago by river, delta, estuary, lagoon and shallow marine deposits. Fossils include amphibian footprints, reptiles, and plant material in the eastern part of the Canyon and increasing numbers of marine fossils in the western part.



**Redwall Limestone:** This layer is primarily composed of marine limestones and thin-bedded dolomite forming sheer cliffs ranging from 400-500 feet in height. The Redwall is actually a gray limestone that has been stained red by iron oxide that washes down from the Hermit and Supai formations. The layer was formed during the Mississippian period about 340 million years ago in a shallow, tropical sea that contained a wide variety of sea life. Fossils found in the layer include fishes, brachiopods, corals, mollusks, crinoids, and trilobites.

**Temple Butte Limestone:** This layer is mostly dolomite, a rock formed from limestone by the later addition of magnesium in a marine environment. It is purplish, gray or cream in color and forms a discontinuous layer in the eastern part of the Grand Canyon. Fossils are rare, but include protective plates from primitive armored fish.

**Muav Limestone:** This layer is primarily composed of thin-bedded dark-gray, light-gray, and brown, cliff-forming limestone, dolomite, and calcareous mudstone. It ranges in thickness from 250 to 375 feet and was formed 515 million years ago in ocean waters far from shore through silt and calcium carbonate deposition. Muav fossils include trilobites and brachiopods.

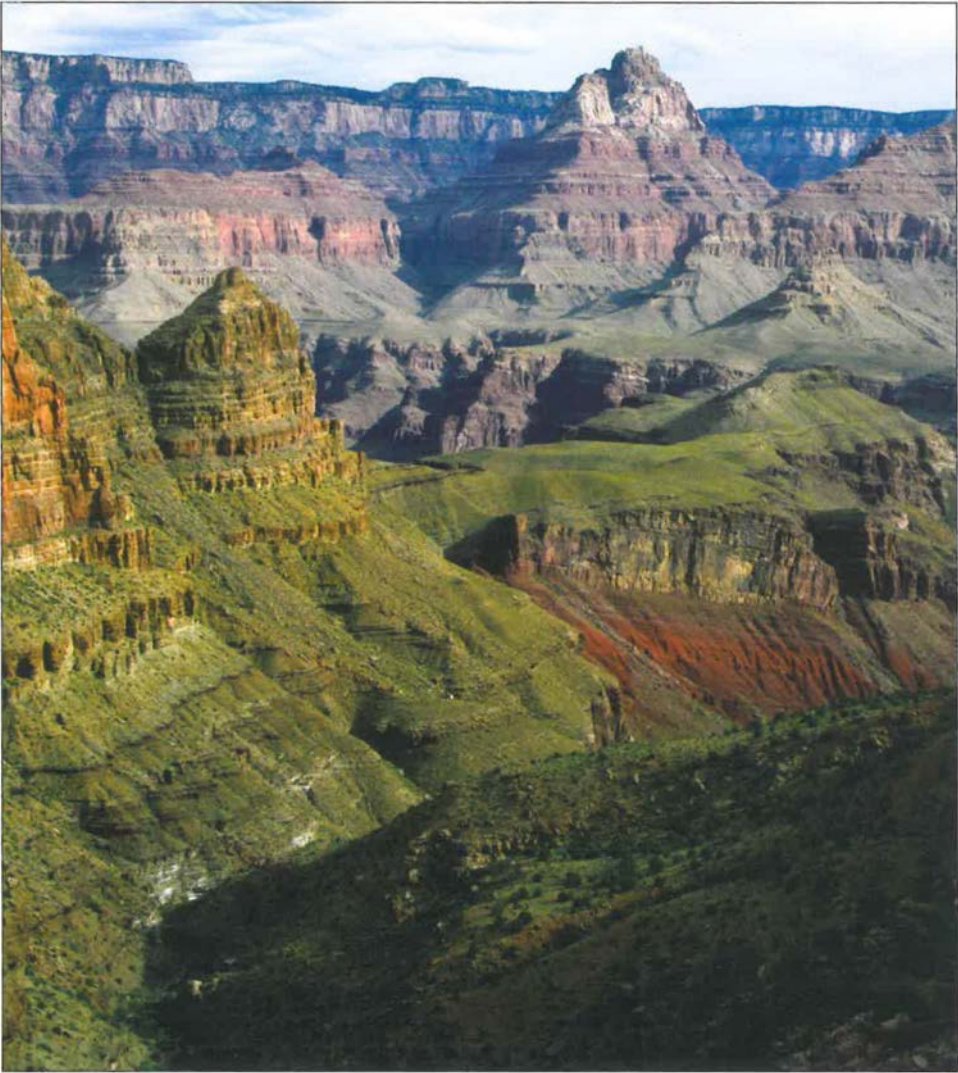
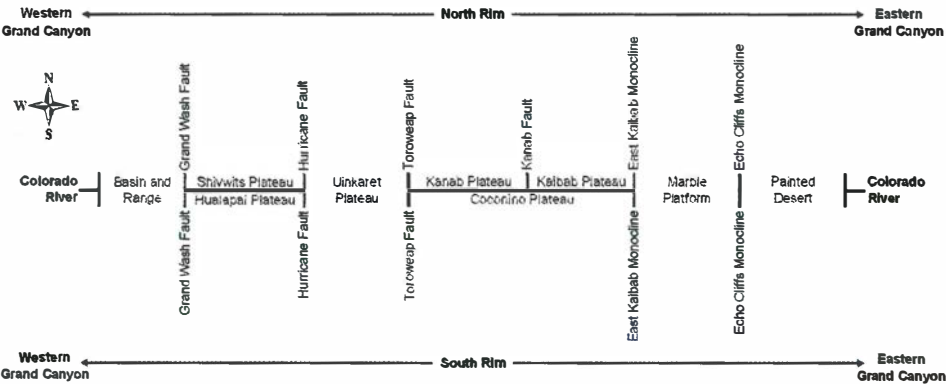
**Bright Angel Shale:** This slope-forming layer is composed primarily of green mudstones with lesser amounts of fine-grained brown to dark-purple sandstones. Today it appears as a sediment-covered slope broken by low sandstone ledges. The layer is 325 to 450 feet thick and was deposited in a near-shore environment as mud approximately 530 million years ago. Fossils include trilobites, brachiopods, and primitive mollusks. Tracks, trails and burrows are relatively common and were formed by various worms, snails and trilobites.

**Tapeats Sandstone:** This layer is a cliff-forming unit of dark brown sandstone. It is 250 to 300 feet thick and was formed 545 million years ago as near-shore beach and sandbar deposits. Fossils and imprint trails of trilobites and brachiopods have been found in the Tapeats.

**Vishnu Schist and Zoroaster Granite:** This layer contains the oldest rocks in the Grand Canyon, some dating back 1.8 billion years. The gap in time separating the Tapeats Sandstone layer from the Vishnu Schist represents a time frame of 1.2 billion years. This gap in geologic history is known as the Great Unconformity. Unlike the layers above, the Vishnu Schist and Zoroaster Granite consist of metamorphic rocks and igneous intrusives, respectively. The metamorphic rocks were originally sediment and volcanics, including lava flows. The Vishnu was deformed and metamorphosed, and then the Zoroaster Granite intruded into it about 1.7 billion years ago. The resulting mountain range was probably as tall as the Rockies. No fossils are found in these layers.

The Grand Canyon averages 1 mile in depth and 10 miles across (rim to rim), though is as much as 18 miles across in the western canyon. The North Rim is about 1000 feet higher than the South Rim due to a general tilt in the plateau from north to south. This tilt has caused asymmetrical erosion with the north side having eroded back farther from the river with longer tributary canyons than the south. The Canyon is bisected by six major faults. From west to east, they are: the Grand Wash Fault, Hurricane Fault, Toroweap Fault, Kanab Fault, East Kanab Monocline and Echo Cliffs Monocline, which separate the Basin and Range area to the west of the Canyon from the Painted Desert to the east.

# GRAND CANYON OVERVIEW





## Natural History

Grand Canyon National Park covers 1,904 square miles, encompasses 277 miles of the Colorado River and is considered one of the seven wonders of the natural world. Although the Canyon is most widely regarded for its geologic formations, it also houses numerous plant and animal species within its depths including several threatened and endangered species.

In 1889, C. Hart Merriam surveyed the plant life of the San Francisco Peaks near Flagstaff, the Painted Desert to the east, and the Grand Canyon for the Federal Biological Survey. Merriam observed an exceptional range of biodiversity in this relatively small geographic area, which he attributed to changes in elevation, climate and temperature. These observations led to his first publication delineating “life zones” on a regional scale.

Merriam's Life Zones 1891	Modern Vegetation Zones	Elevation Range (feet)	Annual Precipitation
Arctic-Alpine	Alpine Tundra	11,500–12,700	35"–40"
Hudsonian	Spruce-Fir or Subalpine Conifer Forest	9,500–11,500	30"–40"
Canadian	Mixed Conifer Forest	8,000–9500	25"–30"
Transition	Ponderosa Pine Forest	6000–8500	18"–26"
Upper Sonoran	Pinyon-Juniper Woodland, Semi-Arid Grasslands, Semi-Arid Scrub	3500–6500	10"–20"
Lower Sonoran	Mojave, Sonoran, or Chihuahuan Desert	100–3500	3"–12"

The Grand Canyon possesses all but the Alpine Tundra Zone and it's been said that the life zones you'll pass through on a hike from Phantom Ranch to the North Rim is comparable to a trip from Mexico to Canada. Though this analogy is true only in a general sense, there's no doubt that the plant life that is supported changes markedly with elevation due to unique climate, soil conditions, topography and water availability. Near the Colorado River and its tributaries, riparian woodland consisting of cottonwood, tamarisk and willow prevails. Common animals include raccoons, ringtails,

spotted skunks, mallards, red-spotted toads and tree lizards. Just above the river corridor extending to an elevation of 4,500 feet two types of desert scrub community exists. The Mohave Desert Scrub community consists primarily of saltbush and creosote bush, while the Blackbrush Scrub community consists largely of its namesake. In addition to these dominant plants, the scrub consists of various agave, yucca and cacti and supports skunks,



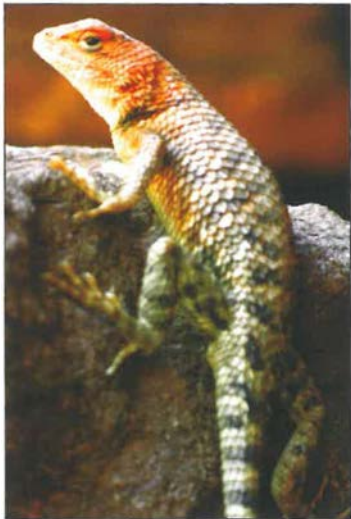
# GRAND CANYON OVERVIEW

mice, rats, jackrabbits, wrens, lizards and snakes. A pinyon pine and juniper forest grows above the desert scrub between 4,000 and 7,300 feet, while between 7,000 feet and 8,250 feet ponderosa pine is abundant. On the North Rim at elevations above 8,200 feet lies a forest consisting of spruce and fir. These higher elevations also support cottontails, mule deer, chipmunks, squirrels, porcupines, jays, bluebirds, woodpeckers and thrushes.

A quick survey of plant and animal life within the canyon yields the following:

Birds	373 species
Mammals	91 species
Fish	17 species
Reptiles and Amphibians	57 species
Crustaceans	33 species
Mollusks	37 species
Invertebrates	8,480 known species
Plants (vascular)	1,750 species
Mosses	64 species
Lichens	195 species
Fungi	167 species
Endemic Species	12 species
Exotic (non-native)	187 species

The Grand Canyon is home to several endangered and threatened species as well as species of special concern. The terms “endangered”, “threatened” and “species of special concern” are legal designations under the Endangered Species Act (ESA) with specific criteria for listing. An “endangered” species is one that faces a significant risk of extinction in the near future throughout all or a significant portion of its range, while a “threatened” species is one that likely to become an endangered species within the foreseeable future. Both of these designations carry legal protections. A “species of special concern” is one for which information exists showing vulnerability or threat, which would be considered threatened or endangered if populations continue to decline, though no protections are afforded under this designation.



Species designation under the ESA is a complicated and political process. As a result it's thought that within the U.S. the number of known species threatened with extinction is ten times higher than the number protected under the Act. Endangered and threatened species in the Grand Canyon include the California condor, humpback chub, southwestern willow flycatcher, Mexican spotted owl, Kanab ambersnail, Little Colorado River spinedace, Yuma clapper rail, desert tortoise, bald eagle and sentry milk vetch. In addition there are over 35 animal and 26 plant species of special concern.

Prior to the existence of environmental protections or when these protections fail, species have gone extinct. Animals that used to inhabit the Canyon, but have since been extirpated include the grizzly bear, black-footed ferret, gray wolf, jaguar, razorback sucker, Colorado pikeminnow (previously known as the squawfish), bonytail chub, roundtail chub, and northern leopard frog.

Corresponding to a decline in some native plants and animals, a number of invasive species have gained a foothold within the Grand Canyon through human actions. An “invasive species” is one that is non-native to the ecosystem and whose introduction causes environmental harm by outcompeting native species, altering ecosystems, reducing biodiversity, degrading wildlife habitat and/or jeopardizing endangered species. Not all non-native species cause harm. Of the 187 non-native species found in the Grand Canyon about 60 are considered invasive. Animals of concern include feral burros, the New Zealand mudsnail, and common carp. Invasive plants include Russian olive, camelthorn, knapweeds, cheatgrass, whitetop, Russian thistle, sow thistles, tree-of-heaven, ravenna, puncturevine, date palm, and sahara mustard.

Probably the most prevalent of the invasive plants is the tamarisk or salt cedar, which was introduced to the U.S. in the 19th century as an ornamental and for erosion control. It appears as a shrub or small tree and grows to a height of 15 feet. Leaves are small, bluish green and scaly and grow to 1/16 inches in length. The plant typically grows in moist areas along streams and around lakes at elevations below 5000 feet. The tamarisk spread throughout the West reaching the Grand Canyon area during the late 1920s and early 1930s, becoming a dominant riparian zone species along the Colorado River in 1963 (following completion of Glen Canyon Dam). The tree alters soil salinity, chokes out native willow and cottonwood seedlings and robs other native plants of water. Once established in an area, it forms dense thickets, which are extremely unpleasant for hikers and is very difficult to eradicate.

In 2000, the National Park Service conducted an environmental assessment to evaluate the impact of tamarisk in the Grand Canyon. The assessment demonstrated a significant reduction in biodiversity in the areas in which it grew, leading to a tamarisk management and tributary restoration project. In 2002, crews began removing tamarisk





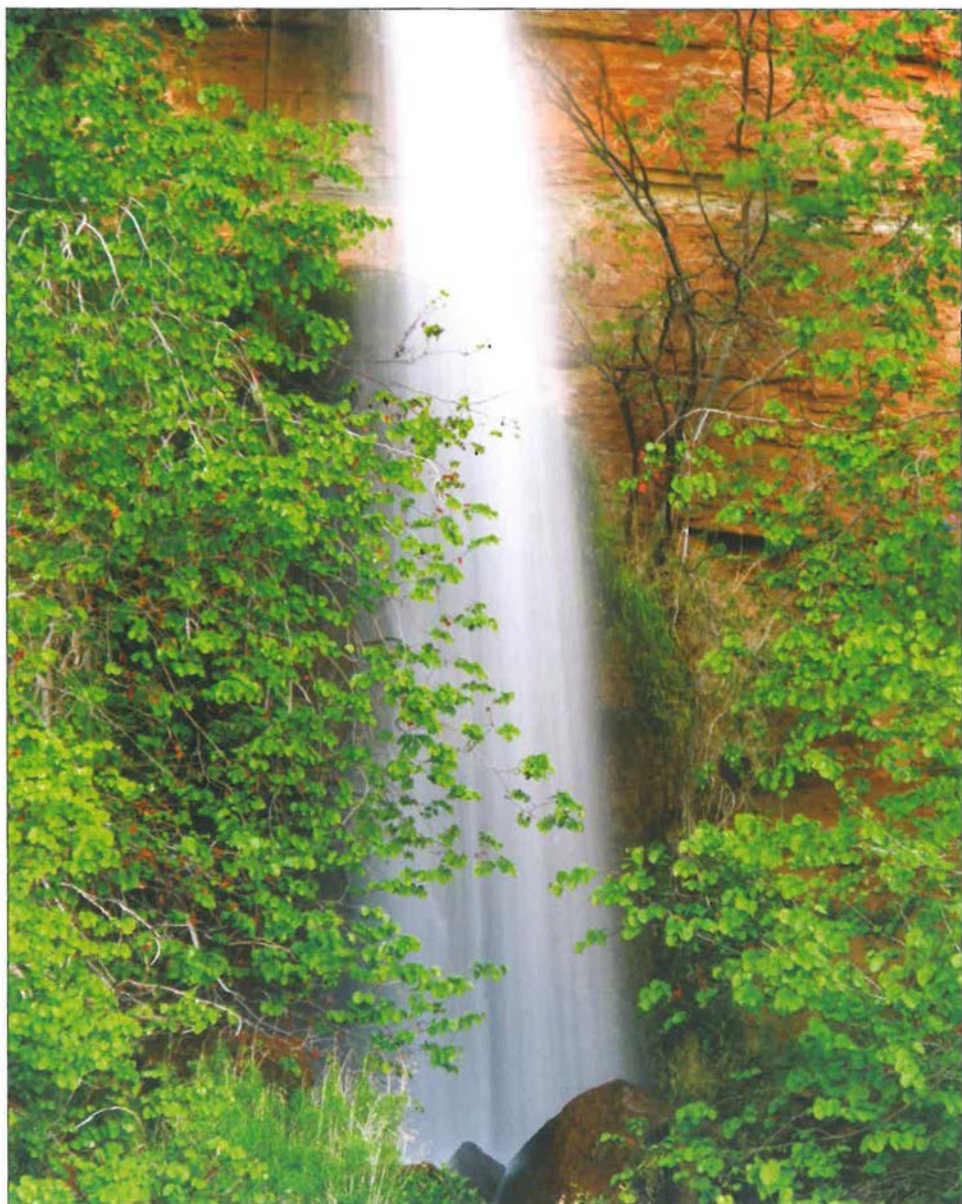
through a combination of mechanical and chemical controls, allowing native vegetation to recover. Methods include pulling, cutting to stump level, or girdling it to leave the dead tree standing for wildlife habitat. If you'd like to get involved in these restoration efforts, the following organizations have volunteer programs for tamarisk control.

## **Grand Canyon Trust**

<http://www.gcvolunteers.org/grand-canyon.html>

## **Grand Canyon National Park Foundation**

<http://www.grandcanyonfoundation.org/projects/exotics.html>





## Human History

**PRE-HISTORY:** The earliest evidence of humans in the Grand Canyon dates back 2,000–4,000 years in the form of split-twig figurines representing deer, pronghorn antelope and bighorn sheep. These figurines, made primarily from twigs of willow or cottonwood, have been found in remote caves in the Redwall Limestone. Thought to be totems made as part of a ritual ceremony to help secure a successful hunt, the figurines have occasionally been found pierced with another stick, resembling a spear or arrow, or containing pellets of deer feces (which also lends credence to the theory that these figures were not children's toys). There is no evidence to indicate that these peoples dwelled in the caves in which the figurines were found. Instead, the makers were thought to be nomads associated with the Late Archaic hunting and gathering culture.

About 2,000 years ago, the people who had been hunters and gatherers adopted some limited forms of agriculture, including corn and squash farming and began building small villages in the area surrounding the Grand Canyon. Archeologists have discovered intricately woven baskets of twisted and coiled grasses and yucca leaves dating from this period. For this reason, the people are appropriately known as the Basketmakers. Evidence suggests they lived in caves, rock shelters and pit-houses and hunted with spears with the assistance of an atlatl or spear-thrower.

As time went on, new cultural developments resulted in an evolution of the Basketmaker culture into one of pueblo building by A.D. 800. The Spanish word “pueblo” means village, and refers to multi-roomed houses built of rock, masonry and mud constructed on the surface of the ground. The Pueblo people, or Anasazi, developed several styles of pottery, including later designs that were corrugated, decorated and painted. Other accomplishments included the invention of new stone and bone tools, cultivation of cotton, and domestication of dogs and turkeys. The population grew rapidly and by A.D. 1050 the Anasazi occupied both rims of the Grand Canyon, as well as many areas within the Canyon itself. Of the more than 2,000 archeological sites known in the Canyon, perhaps 1,500 were inhabited at some time between A.D. 1050 and A.D. 1130.

All this was to change, however, and by A.D. 1150 the Grand Canyon was suddenly abandoned. Although the precise reason for their departure is unknown, contributing



factors may have included a change in weather patterns resulting in an extended draught, overpopulation, depletion of resources, and internal or external tribal conflicts. Whatever the cause, the population scattered, moving out of the Canyon and into new areas such as the Hopi mesas in northern Arizona.

**SPANISH EXPLORERS:** The first Europeans to see the Grand Canyon were Spanish conquistadors seeking the mythical Seven Cities of Gold. According to legend, the cities were founded by seven bishops who fled Spain after the Moorish conquest around A.D. 1150. The cities were said to be filled with gold and treasure.

In 1520, Spain had conquered the Aztecs of Mexico City under the leadership of Hernando Cortés. By 1536, the conquistadors found themselves looking for new opportunities for conquest and riches when four, ragged survivors from an ill-fated Spanish expedition to Florida arrived in Mexico City. The survivors told tales of a great nation filled with riches of jewels, copper, gold and silver, reviving the seven cities legend.

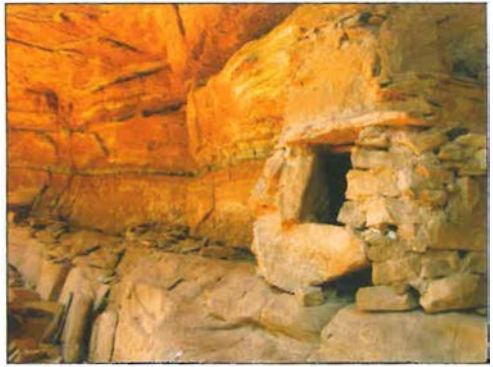
In 1540, the Viceroy of New Spain, with investor funding, commissioned an expedition under the leadership of Francisco Vázquez de Coronado to search for the lost cities. The expedition consisted of a small army of about 300 armored Spaniards and 900 native allies along with large numbers of horses, pack animals, cattle and sheep. A naval expedition was also appointed to sail along the coast and provide logistical support (and to help haul those shiny jewels back to Mexico City no doubt). The party's route took them north through the state of Sonora and eastern Arizona to the head waters of the Little Colorado and Zuni Rivers. After four months of difficult travel, Coronado reached the Zuni pueblo of Hawikuh in western New Mexico. Thinking he had found Cibola, one of the fabled seven golden cities, Coronado conquered the pueblo but was sorely disappointed to find that it lacked any riches.

While at Cibola, Coronado was told of a larger group of seven cities to the west called Tusayan. Hoping to find wealth that would make a profit for the expedition, Coronado sent out parties to investigate. The soldiers returned a month later with news that Tusayan (actually a Hopi pueblo) also lacked treasure, but that the natives there had told them of a great river not far to the west. Believing that the river may provide a route to link up with their ships, Coronado dispatched a force to find the river under the command of Garcia Lopez de Cárdenas. Members of this expedition reached the Grand Canyon in August, 1540 and became the first Europeans to see the Canyon (if only from the rim).

Due to the ruggedness of the terrain and dearth of loot the Spaniards quickly lost interest and didn't return to the area for another 225 years. When they did return it was in the form of missionary priests looking to convert the local tribes to Christianity. Francisco Tomás Garcés was one such missionary and his work brought him to Havasu Creek in June, 1776 and into contact with the Havasupai tribe. Garcés was the first writer to consistently refer to the "Rio Colorado" (or Red River) and helped popularize the use of this name. He was also the first European to name the Grand Canyon, however the name he chose "Puerto de Bucareli" fortunately failed to pass into common usage. Like most other early visitors, Garcés thought of the Grand Canyon largely as a barrier to travel, rather than as a natural wonder. He wrote, "I am astonished at the roughness of this country, and at the barrier which nature has fixed therein." In July, 1781 during another mission journey to the Yuma tribe

on the lower Colorado River in Arizona Garcés and his fellow missionaries were killed in a general uprising and massacre.

In addition to their mission troubles, Spain was experiencing other difficulties in the region. The Louisiana Purchase brought New Spain a new northern neighbor in 1803. And, in 1810, the first calls were issued for Mexican independence and Spain's energies were soon engaged in combating a series of revolutions. Mexico won independence from Spain in 1821 ending Spain's influence in the area.



**MODERN TRIBES:** By about A.D. 1300, new people began to filter back into the Grand Canyon including the ancestors of the closely related Hualapai and Havasupai tribes who moved into the area from the lower Colorado River valley. The Havasupai, whose name means “people of the blue-green water” in reference to the pools in Havasu Creek, are the only tribe currently living in the Grand Canyon. The Hualapai, whose name means “people of the tall pines”, currently occupy a reservation that borders the southern rim of western Grand Canyon for approximately 60 miles.

Also around A.D. 1300, small family groups of Paiute Indians from southern Utah began making seasonal visits to the Kaibab Plateau and North Rim to hunt deer and collect pine nuts. They occasionally ventured into the Canyon to collect rock salt and mescal and sometimes crossed it to contact the Havasupai to the south. The Kaibab Paiute currently live on the Utah border along Kanab Creek in northern Arizona.

The Hopi peoples that inhabit the Grand Canyon area today are the modern descendents of the Anasazi. Though no longer living in the Grand Canyon, it still figures prominently in Hopi mythology as the symbolic place of man's emergence from the underworld via a gateway called the Sipapu. The Sipapu is located along the Little Colorado River and the Hopi still make pilgrimages to this spot, as well as to ancient salt mines located along the Colorado just below the Little Colorado confluence. Their reservation is located about 100 miles east of the Grand Canyon in an area encircled by the Navajo Reservation.

The Navajo Tribe is a relatively recent arrival to the area. The oldest known Navajo hogan in the southwest is one in New Mexico dating from A.D. 1541. The Navajos are Athabaskan speakers whose ancestral home is in western Canada. Sometime between A.D. 1000 and 1400, the Navajo migrated southward, ultimately settling in the Southwest near the Pueblo Indians. Their economy centered on hunting, farming, and the gathering of wild plants, but they also increased their wealth by raiding other tribes taking food, slaves and wives. Some Navajo trips for hunting, trading, and raiding may have brought them to the Grand Canyon, but the first documented record of a Navajo visit to the Grand Canyon is as late as A.D. 1863 when a group fled into the Canyon to hide from Kit Carson as part of a government campaign to stop Navajo raids on New Mexico settlers and to move the tribe to a new area. Today, the Navajo occupy the northeast corner of Arizona and the Four Corners

# GRAND CANYON OVERVIEW

region, including parts of New Mexico, Colorado and Utah. The Navajo reservation is the largest reservation in the U.S. and includes the land on the eastern side of the rim of the Grand Canyon from Lee's Ferry to the Little Colorado River.

**AMERICAN EXPLORERS:** When the United States acquired the Southwest in the Mexican–American War of 1847, much of the new territory was unknown. Maps showed large blank spaces and the course of the Colorado River had never been surveyed. The US government therefore had a strong desire to explore and map the new territory and commissioned a series of military expeditions to do so.

In the summer of 1857, the War Department authorized Lieutenant Joseph Christmas Ives to explore the Colorado River to determine whether it was navigable as a supply route to the outposts in the region. He had a custom made 54-foot iron-hulled steamboat shipped in sections to the mouth of the Colorado. Assembling the boat, the expedition steamed up the Colorado to reach the rapids at Black Canyon, near present day Las Vegas, NV where the boat struck a submerged rock. Deciding this was as far as a steamboat could go he took half his party and proceeded upstream on foot paralleling the Colorado River. Soon they encountered the large canyon of Diamond Creek and followed it to the river. Ives was the first person to record his admiration for the Grand Canyon's scenery, writing, "We paused in wondering delight, surveying this stupendous formation through which the Colorado and its tributaries break their way." Though his "delight" was tempered with a kind of 19th century pragmatism, writing, "It looks like the Gates of Hell. The region is, of course, altogether valueless. It can be approached only from the south, and after entering it there is nothing to do but leave. Ours has been the first and will undoubtedly be the last, party of whites to visit this profitless locality. It seems intended by nature that the Colorado River along the greater portion of its lonely and majestic way, shall be forever unvisited and undisturbed." He was only off by about 5 million people per year.

The most famous explorer in the history of the Grand Canyon and the Colorado River was John Wesley Powell, a Union soldier who lost his arm during the Civil War and later

became a professor of geology at Illinois Wesleyan University. Under university sponsorship, he undertook explorations in the Rocky Mountains and the headwaters of the Grand and Green Rivers in Colorado and Wyoming. It was on field trips out west that Powell began to formulate his idea of exploring the Grand Canyon of the Colorado itself.

On May 24, 1869, Powell and nine men he recruited for the expedition set out from Green River, Wyoming on a journey that would cover almost 1,000 miles. To negotiate the river Powell had four boats of his own design built. Three heavy 21-foot boats of white oak and a lighter, 16-foot boat made of white pine were constructed with watertight compartments stocked with supplies sufficient for 10 months. Powell named the light





boat the “Emma Dean” after his wife, the heavy boats were named the “Maid-of-the-Canyon”, “Kitty Clyde’s Sister” and, having perhaps strained his imagination to the limit on the previous three, the “No-Name.”

On June 8, in a place later called Disaster Falls, the “No-Name” was wrecked in a rapid and lost with 2,000 pounds of provisions. One of the crew almost drowned and when the opportunity arose a few weeks later left the expedition saying, “I’ve had more excitement that a man deserves in a lifetime. I’m leaving.”

The remaining nine men continued on, passing the mouth of the Paria River into what is now the Grand Canyon on August 4. By this time food and water were becoming a problem with the bacon and flour having gone bad and most of the other provisions running low. Progress was further slowed as the party resorted to portaging many of the rapids found in Marble Canyon. On August 10, as the group reached the confluence with the Little Colorado, Powell’s discouragement was showing as he wrote, “We have an unknown distance yet to run; an unknown river yet to explore. What falls there are, we know not; what rocks beset the channel, we know not; what walls rise over the river, we know not.” What he also didn’t know was that things were about to become even more grim as they were to soon enter the Granite Gorge, and that the worst rapids were to follow.

Trapped in what Powell referred to as “our granite prison” and beset with hardships, seemingly endless rapids, and having lost most of their supplies and scientific equipment, some of the men had simply had enough. On August 27, 1869 three of the crew, discouraged by the sight of a particularly bad rapid ahead, determined to leave the expedition. Though Powell initially refused, the men were adamant and departed the next day at what is now called Separation Rapid. The three who left the group were later killed by Paiute Indians, or, as some theorize, Mormon settlers. The exact manner and cause of their deaths remains a mystery.

Leaving the Emma Dean at the head of Separation Rapid in case the deserters changed their minds, Powell and the five remaining men ran what would turn out to be the first of two remaining major rapids they would encounter. Only two days later Powell and his men reached the mouth of the Virgin River (now beneath Lake Mead) completing his trip through the Grand Canyon.

Though many of his notes were lost, the effects of Powell’s expedition are still felt today. Powell’s exploration of the Colorado River led to the formulation of some of the fundamental principles of geology and many of the features found in its depths still carry names from the Powell expedition. Though not coined by Powell, his widely read reports even caused the name “Grand Canyon” to be permanently adopted after 1869.

Returning a national hero, Powell embarked on a series of lectures that enabled him to raise funds for a second expedition in 1871. This second excursion produced photographs, an accurate map, and various papers. He went on to become the second director of the US Geological Survey and developed theories for the development of the arid lands of the west. However, as his ideas did not include large scale dam and water distribution projects, they were largely criticized and as history has shown ... ignored. Powell died from a cerebral hemorrhage at his summer home in Haven, Maine, September 23, 1902 and, as befits his status as a Civil War veteran, is buried in Arlington Cemetery.

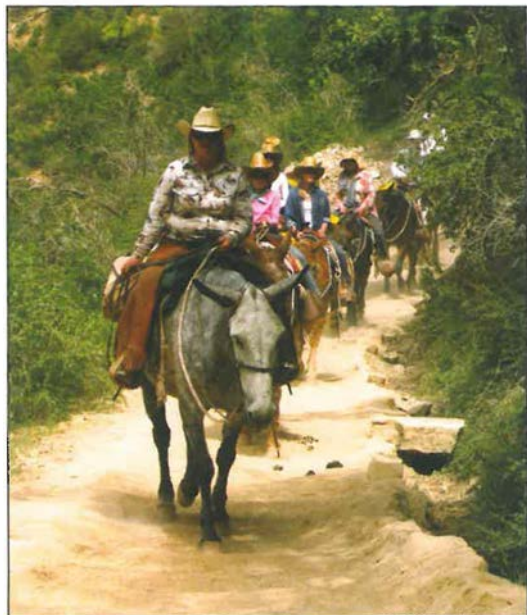
# GRAND CANYON OVERVIEW

**THE GRAND CANYON TODAY:** The area around the Grand Canyon was first afforded Federal protection in 1893 as a Forest Reserve and later as a National Monument in 1908 by President Theodore Roosevelt, who declared, "Leave it as it is. You cannot improve on it. The ages have been at work on it, and man can only mar it. What you can do is to keep it for your children, your children's children, and for all who come after you, as one of the great sights which every American if he can travel at all should see." In 1916 the National Park Service was created and three years later on February 26, 1919 the Grand Canyon was declared a National Park by an act of Congress and signed into law by Woodrow Wilson.

Grand Canyon National Park extends on either side of the Colorado River from Lee's Ferry on the east, to the Grand Wash Cliffs to the west. The park encompasses more than 1.2 million acres (1,904 square miles) making it the 14th largest park by area in the United States (7th largest in the lower 48 states). It is 140 miles wide, but due to the many twists and turns, includes 277 miles of the Colorado River.

One significant change the Canyon has seen since Coronado's men first stared into its depths is the number of people who visit the canyon each year. In 2007 (the latest statistics available as of this writing), the Park received approximately 4.5 million visitors. Though most of these individuals were content to view the Canyon from the rim, backpackers accounted for just over 11,000 backcountry permits for a total of 87,100 nights, more than half of which occurred along the corridor trails. The numbers of people wishing to explore the Canyon on foot, however, were dwarfed by those traveling by other means. River users accumulated 114,000 commercial and 105,500 non-commercial river days, while mule riders accounted for 5,241 visits from the south rim, a seemingly small figure given the mass, volume and intensity of their excretions along the corridor trails. Additionally, there were 221,400 train passengers and 642,000 commercial air tour passengers who viewed the Canyon from one of 90,000 overflights.

By far the largest effects man has had on the Canyon have occurred as a result of dam projects. Though no dams exist within the boundaries of Grand Canyon National Park, it is bracketed between Glen Canyon Dam at the upper end and Hoover Dam at the lower. Glen Canyon Dam lies 15 miles above Lee's Ferry and forms the large reservoir inaccurately named "Lake" Powell. The dam was completed in 1963 and is operated by the U.S. Bureau of Reclamation to provide water storage and power



generation for the growing populations of the Southwest. The dam has long been a source of contention with environmentalists not only for its having submerged Glen Canyon, but also for the profound effects it's had on the Grand Canyon ecosystem. The dam has reduced variability in river flows, decreased the sediment load, and reduced the water temperature. This has had the effect of changing the physical conditions of the Canyon in ways that affect vegetation and wildlife, endangering and in some cases eliminating native species and allowing invasive species to thrive. Hoover Dam, originally known as Boulder Dam, is located at the lower end of the canyon and forms "Lake" Mead. This dam was completed in 1936 at which time it was both the world's largest electric-power generating station and the world's largest concrete structure. While the worst of the negative environmental impacts are felt downstream of the dam, Hoover has had the effect of flooding the lower 40 miles of Grand Canyon when the lake is full.

Though it may appear indestructible and unchanging, the Grand Canyon faces multiple pressures from human activities in and around the Park. A few of these issues are summarized below.

- Uranium mining near the Park boundary has the potential to contaminate local watersheds and cause harm to area residents. Conservationists have successfully petitioned to temporarily ban new uranium claims and exploration across 1 million acres of public land surrounding Grand Canyon National Park. These protections do not, however, affect existing mines in the area slated for reopening, or the exploration of existing patented claims.
- Although air quality in the Canyon is quite good, visibility in the park is often impaired by haze from mobile and stationary sources (the former consisting mainly of automobiles, the latter of coal fired power plants). Haze can reduce visibility from 160 miles on the clearest day to less than 50 miles. In 1996, the Grand Canyon Visibility Transport Commission issued recommendations to the Environmental Protection Agency (EPA)



# GRAND CANYON OVERVIEW

for the reduction of air pollution emissions from industry and vehicles in and around the Park. These recommendations are currently being put into place by the Western Regional Air Partnership and the EPA.

- The Kaibab Plateau is home to the largest distribution of old growth ponderosa pines in the Southwest. Decades of fire suppression, logging, and grazing has begun to change the composition of the ponderosa pine forests on the rim. Combined with drought these factors have also increased the incidences of bark beetle outbreaks resulting in increased tree mortality and a loss of biodiversity. The Park Service is using fire as a management tool for restoring forests through prescribed burns, however old growth logging continues on Forest Service lands on the Kaibab Plateau.
- Population increases and development projects in and around the South Rim are creating an increase in water demand. This demand is being met through groundwater pumping and studies are underway to determine whether this has the potential to effect springs and seeps within the Canyon. Because springs support wildlife and riparian zones and are areas of high biodiversity, their loss could have a significant effect on Canyon species. Several alternatives are under consideration for supplying water to this rapidly growing region including conservation projects, the use of reclaimed water and identifying the best and most efficient use of existing water sources.
- In 1987, President Reagan signed the National Parks Overflights Act that called for “substantial restoration of the natural quiet” at Grand Canyon National Park, which was defined as 50% or more of the park achieving natural quiet (i.e., no aircraft noise) for 75 to 100 percent of the day. By all accounts the Act has been a complete failure. Since it was signed, overflights have doubled and the standard (which many consider inadequate to begin with) has not been met. Lawsuits have been filed against the Federal Aviation Administration for failure to enforce the standard, but the issue is unlikely to be resolved anytime soon.

In a speech that President Roosevelt made at the Grand Canyon on May 6, 1903, he stated, “I was delighted to learn of the wisdom of the Santa Fe railroad people in deciding not to build their hotel on the brink of the canyon. I hope you will not have a building of any kind, not a summer cottage, a hotel, or anything else, to mar the wonderful grandeur, the sublimity, the great loneliness and beauty of the canyon.” Alas, Mr. Roosevelt would be spinning in his grave to learn that visitor facilities now include: a visitor center, museums, backcountry office, historic structures, scenic overlooks, rim trails, overnight lodging, trailer sites, dump stations, tent campsites, restaurants, cocktail lounges, general stores, gift shops, bookstores, kennel, post office, bank, service stations, dentist, medical clinic, laundry and showers. Though I can do without many of the amenities on this list, I think even Teddy would have to agree that the showers were a really good idea.

Between the roads, buses, facilities, trails, and guidebooks, visiting the Grand Canyon today is easier than ever. It’s important, however, not to let these trappings of civilization lull you into a false sense of security. Much of the Grand Canyon is as wild today as it was when the first natives were sticking deer poo into split-twigs. There is still much that is rugged, remote and unexplored in the Canyon. Today’s explorers can be considered the modern descendants of a long line of peoples curiously attracted to this very large hole in the ground.



## Climate Overview

Welcome to Arizona, where summer spends the winter—and hell spends the summer. With elevations ranging from 2,000 feet to over 8,000 feet, the Grand Canyon area experiences a variety of weather conditions, many of them inhospitable. Temperatures can be extreme, ranging from below 0°F in the winter to 115°F in the summer. Flash floods are possible during stormy weather and can occur even when the sky is clear overhead. Summers can be unbearably hot with an increased chance of afternoon thunderstorms during the monsoonal months. Winters can be brutally cold with ice and deep snow. Spring and fall weather is extremely unpredictable; be prepared for sudden changes in the weather at those times of year.

Air temperature drops and precipitation increases with elevation, correspondingly the rims are significantly cooler and wetter than the bottom of the canyon. Since southern exposures receive more sunshine than north facing slopes, they tend to be warmer and drier. The average annual precipitation in the Grand Canyon varies from less than 10 inches per year in the Inner Gorge to nearly 30 inches per year on the Kaibab Plateau. Most of the precipitation on the North Rim falls as snow, with the Kaibab Plateau receiving more than 125 inches of snow in a typical year, while the South Rim typically receives half as much.

### **WINTER**

Winter weather in the Grand Canyon can vary significantly between crisp and sunny to snowy and blizzard-like. The North Rim on the Kaibab Plateau is largely inaccessible during the winter months due to deep snow, which can remain through April. The Park Service closes visitor facilities from mid-October to mid-May and usually closes Highway 67 from Jacob Lake to the North Rim in mid-November. On the South Rim, paved roads are usually maintained, though snow and ice can cause closures. High temperatures on the rims average in the 40s with lows dropping into the teens at night. Within the inner canyon, high temperatures average in the 40s and 50s with lows in the 30s and 40s. By November the weather becomes unsettled with occasional flurries with frequent light to moderate snows and increasingly colder temperatures settling in by December and January. Average snowfall on the rims ranges from 50 to over 100 inches while the precipitation typically falls as rain in the lower elevations of the Canyon. During winter months, the upper portions of trails are often covered with snow and ice making foot travel difficult.

### **SPRING**

Temperatures begin to warm by mid-April though it's possible to experience occasional flurries on the rims in May. High temperatures on the rims rise from 50s and 60s in April through the 70s and 80s by June with lows dropping below freezing in April and into the 40s by June. Within the Canyon, high temperatures vary from the 80s in April to over 100 in June, while lows range from the 50s in April to 70s in June. Spring weather is frequently breezy though the chance of precipitation drops throughout the spring with May and June being the driest months on average.

# GRAND CANYON OVERVIEW

## SUMMER

Summer temperatures on the Canyon’s rims are pleasant with highs in the 70s and 80s. The North Rim is typically cooler than the South due to higher elevations. Lows on the rims typically range in the 40s and 50s, though lows on the North Rim can occasionally drop to near freezing. Near the river, day time highs often exceed 100 degrees with night time temperatures in the 60s and 70s. July is the hottest month in the Canyon. Summer temperatures spawn a monsoon with the potential for torrential rains, lightning, and sudden flash floods. The term “monsoon” comes from the Arabic “mausim” meaning “season” or “wind shift.” In Arizona the monsoon is caused by a zone of low pressure created by hot, rising air. This low pressure zone pulls moisture into the area from the Sea of Cortez and Gulf of Mexico. Storms range from minor dust storms to violent thunderstorms. The monsoon season lasts from June 15 until September 30 with August being the wettest month.

## AUTUMN

Temperatures begin to cool by mid-September though it’s possible to experience hot weather through October. High temperatures on the rims fall from the 60s in September to the 50s by November with lows dropping below freezing. Within the Canyon, high temperatures vary from the 90s in September to the 70s by November, while lows range from the 50s to 60s. Summer monsoonal storms typically diminish by mid-September; however, variable weather conditions can lead to late summer and early winter storm fronts.

## BEST TIME FOR CANYONEERING

When is the best time to hike in the Grand Canyon? The easy answer is that the milder temperatures of spring and fall generally provide the best conditions for canyoneering. However, trips at other times of the year may also be possible by choosing a hike that matches the season, weather and by carrying suitable gear for the circumstances.

Average Temperatures (°F) at the South Rim

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High (F)	41°	45°	51°	60°	70°	81°	84°	82°	76°	65°	52°	43°
Low (F)	18°	21°	25°	32°	39°	47°	54°	53°	47°	36°	27°	20°

Average Temperatures (°F) at the North Rim

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High (F)	37°	39°	44°	53°	62°	73°	77°	75°	69°	59°	46°	40°
Low (F)	16°	18°	21°	29°	34°	40°	46°	45°	39°	31°	24°	20°

Average Temperatures (°F) in the Inner Canyon

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High (F)	56°	62°	71°	82°	92°	101°	106°	103°	97°	84°	68°	57°
Low (F)	36°	42°	48°	56°	63°	72°	78°	75°	69°	58°	46°	37°

Average Precipitation (in inches) at Grand Canyon

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
South Rim	1.32	1.55	1.38	0.93	0.66	0.42	1.81	2.25	1.56	1.10	0.94	1.64
North Rim	3.17	3.22	2.65	1.73	1.17	0.86	1.93	2.85	1.99	1.38	1.48	2.83
Inner Canyon	0.68	0.75	0.79	0.47	0.36	0.30	0.84	1.40	0.97	0.65	0.43	0.87

Though winter is not the most popular canyoneering season, the Canyon can be quite pleasant at lower elevations. Keep in mind that the large difference in elevation between the rim and the river results in temperatures in the inner canyon that are usually 15° to 30°F warmer than on the rim. This makes for pleasant winter hiking temperatures in the inner Canyon for those carrying a warm sleeping bag for the cold nights. Access to the inner Canyon can be limited as snow buries the upper trails. Mules and hikers usually keep the South Kaibab and Bright Angel Trails open, though you'll want to carry some type of traction device due to ice. Probably the best area for winter hiking is the lower elevations of Marble Canyon, which remains snow-free much of the season.

Between flash floods and high temperatures, summer presents significant challenges for Grand Canyon travel. The best way to address the heat issue is to choose a canyon with perennial water and to avoid hiking during the warmest parts of the day. If the hike involves traveling on well defined trails, consider hiking at night with a headlamp. In addition to cooler temperatures, you'll get to experience the silence of the Canyon and potentially see some interesting nocturnal creatures (assuming the giant hairy scorpion meets your definition of "interesting"). To reduce the risk of flash flood, stay out of the narrow canyons during the monsoon season and be sure to get a good weather forecast prior to the trip.

Spring and fall weather is well suited for Canyon hiking and canyoneering, but keep in mind that some canyons require a considerable amount of wading and swimming and that the water can be extremely cold during these times of the year. With cooler air temperatures, a thick wetsuit may be the only way to stave off hypothermia.

Regardless of the season, be sure to get an up to date weather forecast before every trip. A few web-based resources are listed below.

### Weather

- National Weather Service: <http://www.weather.gov>
- Weather Underground: <http://www.wunderground.com>
- The Weather Channel: <http://www.weather.com>

### Roads and Trails

- Backcountry Updates: <http://www.nps.gov/grca/planyourvisit/trail-closures.htm>
- Road closures (ADOT): <http://azdot.gov>
- Grand Canyon National Park information line: 928-638-7888



*A sudden blizzard in Tanner Wash.*



## Permits, Fees and Regulations

*“Any fool can make a rule, and any fool will mind it.”*

— Henry David Thoreau

*“Sign, sign everywhere a sign.*

*Blocking out the scenery, breaking my mind.*

*Do this, don’t do that, can’t you read the sign?”*

— Five Man Electric Band

What would a wilderness experience be without rules? Lots and lots of rules. Now before I let my anti-authoritarian streak get the better of me, let me say that I’m sure many of these regulations were put into place for very good reasons. Whether to increase safety, to manage a limited resource in a fair manner, for environmental protection, or to generate revenue ... these are potentially, good reasons all. It’s just that the combined weight of regulatory requirements, coupled with a permit system that must have been put into place in the mid-1970s when the fax machine was the pinnacle of man’s technological achievement, can leave any freedom-loving outdoors person feeling constrained. With that said, here are some of the more important backcountry permit requirements of which to be aware. I’ve included a few helpful tips to assist in navigating the system. Do your best to cheerfully comply with what amounts to be a maddening, antiquated and bureaucratic system, and don’t forget to be friendly to the rangers—they are only doing their job.

### **BACKCOUNTRY PERMITS**

A backcountry permit is required for any activity that involves staying below the rim overnight as well as camping anywhere in the park (other than in developed campgrounds on the North Rim, South Rim, or Toroweap). This includes overnight hiking.

**Tip:** No permit is required for day hiking.

The permit is only good for the dates, number of people, use area and specified itinerary, and you must have the permit in your possession at all times (every ranger you encounter below the rim will invariably request to see your permit).

**HOW TO APPLY:** Those wishing to obtain a permit must fill out a Backcountry Permit Request Form, which is available online at:

<http://www.nps.gov/grca/planyourvisit/upload/permit-request.pdf>

The form should include the following information:

1. Trip leader’s name, address, and telephone number.
2. Credit card number, expiration date, signature, date signed, and largest amount you authorize the National Park Service (NPS) to charge.
3. Number of people and/or stock in the group.
4. License plate numbers of any cars to be left at the trailhead. Proposed night-by-night itinerary showing use area codes and dates for each night. Area codes may be obtained from the Backcountry Use Area Map at:

[http://www.nps.gov/grca/planyourvisit/upload/backcountry\\_map.pdf](http://www.nps.gov/grca/planyourvisit/upload/backcountry_map.pdf)

## 5. Alternative proposed itineraries.

Submit the form to the Backcountry Information Center at Grand Canyon National Park in one of the following ways:

1. Bring request in person to the Backcountry Information Center.
2. Fax request to the Backcountry Information Center: 928-638-2125.
3. Mail request to: Grand Canyon National Park  
Backcountry Information Center  
GCNP, P.O. Box 129  
Grand Canyon AZ, 86023

The South Rim Backcountry Information Center is located on the South Rim near Maswik Lodge in the western part of Canyon Village off of the Village Loop Road and is open daily for walk-in visitors from 8 a.m. to noon and 1–5 p.m. The North Rim Backcountry Information Center is located at the North Rim Ranger Station off of Highway 67 and is open daily mid-May to mid-October for walk-in visitors from 8 a.m. to noon and 1–5 p.m. Beginning mid-October, the North Rim office is open daily from 8 a.m. to noon and 1–4 p.m. until November 30 or until snow closes Highway 67, whichever comes first. Once the North Rim office closes it does not reopen until mid-May. Backcountry Information Center staff might answer information telephone inquiries at 928-638-7875 between 1 p.m. and 5 p.m. Monday through Friday, except on federal holidays (but more often than not, the number is busy). This telephone number is for information only.

**Tip:** In order to maximize your chances of obtaining your desired permit, include multiple alternative itineraries in the application.

**WHEN TO APPLY:** Written requests are accepted four months prior to the proposed start month, while verbal in-person permit requests are considered for start dates one to three months out (see table below).

**Tip:** Applying as soon as allowed will improve your chances of obtaining an overnight backcountry use permit for the dates and use areas of your choice.

For dates during the month of:	Submit written permit requests on or after:	In-person verbal requests accepted on or after:
January	September 1	October 1
February	October 1	November 1
March	November 1	December 1
April	December 1	January 1
May	January 1	February 1
June	February 1	March 1
July	March 1	April 1
August	April 1	May 1
September	May 1	June 1
October	June 1	July 1
November	July 1	August 1
December	August 1	September 1

Mailed requests must be postmarked no earlier than the date indicated above. Faxed requests must not be received earlier than the date indicated.

# GRAND CANYON OVERVIEW

**RESPONSE TO PERMIT APPLICATIONS:** After submitting your permit application, you wait for a response from the NPS who will contact you through the U.S. Mail, usually within three weeks. The response will take one of the three forms:

1. Your application will be accepted and you'll receive a permit.
2. Your application will be denied and you'll receive a denial letter.
3. Your application will be put on hold, and you'll receive a Hiker Information Sheet. (those in the Grand Canyon hiking community affectionately refer to this form as the "You Are Going to Die Letter"). The letter is sent when the NPS feels your itinerary is aggressive (daily travel in excess of 10 miles, a solo itinerary, travel during times when excessive heat is present or hikes that involve a river crossing) and takes the form of a request for emergency contacts and gear you're carrying/wearing so that they can identify your corpse and identify your next of kin in the event of your untimely (and as the letter might imply ... highly likely) demise. Once you fax the information back your permit will be issued.

**Tip:** Many of the hikes in this book will likely trigger the "You Are Going to Die Letter". Make a copy of this information so you can easily resubmit it. I've been told by a backcountry ranger that pre-emptive submittal of this information with your permit application may stave off delays in permit issuance. No guarantees, but it can't hurt to try. If you have been denied a permit through the mail, you may want to consider day hikes or attempt to obtain a last minute, walk-in permit.

**WALK-IN PERMITS:** The very best way to deal with the permit system is face to face at the Backcountry Information Center. The ranger will be able to tell you which areas are open and you can leave the window with a permit in hand. This includes permits for the most popular corridor campgrounds for which permits are made available due to last minute cancellations.



Be aware that during popular hiking months, a line will form outside the office in the morning even before it opens. Rangers will hand out waitlist numbers (like slips at a deli counter) that will indicate your position in line. If the wait is expected to be long you can kill some time elsewhere in the park and return with your slip later to pick up your place in line. While better than nothing, this system really is not terribly effective for those with limited time and who prefer hiking to queuing.

**REMOTE SITES:** Last minute permits may sometimes be obtained from rangers on duty at the Toroweap, Meadview, and Lee's Ferry ranger stations for a limited number of use areas in their vicinities. Don't count on it though, these rangers have other patrol responsibilities and may not be available to provide assistance.

## ***FEES (as of this writing)***

Backcountry Permits have a non-refundable fee of \$10 per permit plus \$5 per person per night camped below the rim and \$5 per group per night camped above the rim.

**Tip:** Frequent users may wish to purchase a one-year Frequent Hiker membership for \$25 that waives the initial \$10 fee for each permit obtained by the trip leader for twelve months from the date of purchase.

The above fees do not include the \$25/car Park entrance fee.

**Tip:** Frequent National Park visitors will want to get one of two annual passes. The National Parks and Federal Recreational Lands Pass costs \$80 (\$10 for those over the age of 62) and is good for any Federal recreation site that charges an entrance fee. The Grand Canyon National Park Annual Pass is \$50.00 but is only valid for GCNP. Both are valid for a year, beginning from the date of sale and admits the pass holder and 3 additional vehicle passengers. The pass can be obtained in person at the park entry gate, by calling 1-888-ASK USGS, Ext. 1, or via the internet at: <http://store.usgs.gov/pass>.

In order to deter people from getting permits that they are not going to use, backcountry permits are non-refundable. However, if you cancel a permit at least three days in advance, the Backcountry Information Center (BIC) will issue Hiker Credit for the permit, minus a \$10 cancellation fee. Hiker Credit can be used to purchase backcountry permits at Grand Canyon National Park and is good for one year. You can notify the BIC of cancellations in person, by mail, or by fax, however before Hiker Credit can be issued you'll need to return the physical copy of the cancelled permit in person or by mail.

## **BACKCOUNTRY ZONES AND USE AREAS**

The backcountry is divided into "use areas". The use area and date will need to be specified in the permit application. You may only camp within the use area specified on the permit. Each use area has an overnight capacity based upon the size of the area, the number of suitable and available campsites, its ecological sensitivity, its management zoning, and its use history. Use areas range in size from several hundred acres to several thousand acres.

More permits are available for Parties (1–6 people) than for Groups (7–11 people). Because there are only a few large group sites, limiting the size of your group to 6 or fewer will increase your chances of obtaining a permit. It's against the rules to circumvent the group size limits by obtaining multiple permits for the same campground or use area for the same night.

**CORRIDOR ZONE:** Recommended for hikers without previous experience at Grand Canyon. This zone features maintained trails, purified water stations, paved roads to trailheads, toilets, signs, emergency phones, and ranger stations. The use of private livestock (horses and mules only) is allowed only when specified on the permit.

**THRESHOLD ZONE:** Recommended for experienced Grand Canyon hikers. This zone contains non-maintained trails, scarce water sources, has dirt roads to trailheads, and pit toilets. The use of private livestock (horses and mules only) is allowed with permit only on Whitmore Trail and on designated roads and trails on the rim.

**PRIMITIVE ZONE 1:** Recommended for highly experienced Grand Canyon hikers with proven route-finding ability. Trails and routes are non-maintained and 4-wheel-drive vehicles are needed to reach trailheads. There are only occasional signs; otherwise, no other developments.

**WILD ZONE 1:** Recommended for highly experienced Grand Canyon hikers with extensive route-finding ability. Routes require advanced route-finding ability. Water sources are scarce to non-existent. No other development is present.

**CAMPTYPE:** A/L = At Large Camping, D/S = Designated Sites, D/G = Designated Campground.



# GRAND CANYON OVERVIEW

Area	Name	Zone <sup>1</sup>	Group(s) <sup>2</sup>		Parties <sup>3</sup>	Max People	Camp Type
AA9	Badger	Primitive	1	and	1	17	A/L
AU9	Blacktail Canyon	Wild	1	or	2	12	A/L
BN9	Boucher	Primitive	1	and	2	23	A/L
LB9	Boysag	Wild	1	or	2	12	A/L
LK9	Burnt Point	Wild	1	or	2	12	A/L
SA9	Cape Final	Threshold	0	or	1	6	D/S
SA9	Cape Solitude	Primitive	1	and	2	23	A/L
BC9	Cardenas	Primitive	1	and	2	23	A/L
SB9	Cedar Mountain	Threshold	2	or	2	34	A/L
AJ9	Cheyava	Wild	1	or	2	12	A/L
AF9	Chuar	Primitive	1	and	3	29	A/L
AK9	Clear Creek	Threshold	1	and	3	29	A/L
CBG	Corridor-Bright Angel	Corridor	2	and	31	90	D/G
CCG	Corridor-Cottonwood (Summer)	Corridor	1	and	6	40	D/G
CCG	Corridor-Cottonwood (Winter)	Corridor	1	or	1	8	D/G
CIG	Corridor-Indian Garden	Corridor	1	and	15	50	D/G
BG9	Cottonwood Creek	Primitive	1	and	2	23	A/L
BJ9	Cremation	Primitive	1	and	2	23	A/L
AX9	Deer Creek	Primitive	1	and	1	17	D/S
LG9	Diamond Creek	Wild	1	or	2	12	A/L
SF9 <sup>4</sup>	Eminence Break	Primitive	1	and	1	17	A/L
AY9	Esplanade	Primitive	1	and	2	23	A/L
AZ9	Fishtail	Wild	1	or	2	12	A/L
BS9	Fossil	Wild	1	or	1	1	A/L
BR9	Garnet	Primitive	1	and	2	23	A/L
LM9	Grand Wash Cliffs	Primitive	1	and	2	12	A/L
BH9	Grapevine	Primitive	1	and	2	23	A/L
AL9	Greenland Springs	Wild	1	or	2	12	A/L
BE9	Hance Creek	Primitive	1	and	2	23	A/L
BM7	Hermit Loop-Hermit Creek	Threshold	1	and	3	29	D/S
BM8	Hermit Loop-Hermit Rapids	Threshold	1	and	1	17	D/S
BL4	Hermit Loop-Horn Creek	Threshold	0	and	1	6	D/S
BL5	Hermit Loop-Salt Creek	Threshold	0	and	1	6	D/S
BL6	Hermit Loop-Cedar Creek	Threshold	0	and	1	6	D/S
BL7	Hermit Loop-Monument	Threshold	1	and	3	29	D/S
BL8	Hermit Loop-Granite Rapids	Threshold	1	and	2	23	D/S
BL9	Horseshoe Mesa	Threshold	2	and	3	40	D/S
SI9 <sup>4</sup>	Jackass	Primitive	1	and	1	17	A/L
LA9	Kanab Creek	Primitive	1	and	2	23	A/L
NK9	Kanab Point	Primitive	1	and	3	29	A/L
NC9	Ken Patrick	Primitive	1	and	2	12	A/L
NN9	Lava	Threshold	1	and	1	17	A/L
AE9	Nankoweap	Primitive	1	and	2	23	A/L
BU9	National	Wild	1	or	2	12	A/L
AS9	North Bass	Primitive	1	and	1	17	A/L

# PERMITS, FEES AND REGULATIONS

Area	Name	Zone <sup>1</sup>	Group(s) <sup>2</sup>		Parties <sup>3</sup>	Max People	Camp Type
BT9	Olo	Wild	1	or	2	12	A/L
NG9	Outlet	Primitive	1	and	2	23	A/L
BA9 <sup>4</sup>	Palisades	Primitive	1	and	2	23	A/L
LE9	Parashant	Wild	1	or	2	12	A/L
SE9	Pasture Wash	Threshold	2	and	3	40	A/L
AP9	Phantom Creek	Wild	1	or	2	12	A/L
NH9	Point Sublime	Threshold	2	and	3	34	D/S
AT9	Powell Plateau	Primitive	1	and	2	23	A/L
BD9	Red Canyon	Primitive	1	and	2	23	A/L
AB9	Rider	Primitive	1	and	1	17	A/L
ND9	Robbers Roost	Primitive	1	and	3	29	A/L
BP9	Ruby	Primitive	1	and	2	23	A/L
AD9	Saddle Canyon	Primitive	1	and	1	17	A/L
SH9 <sup>4</sup>	Saltwater Wash	Primitive	1	and	1	17	A/L
AR9	Scorpion Ridge	Wild	1	or	2	12	A/L
LH9	Separation	Wild	1	or	2	12	A/L
SG9 <sup>4</sup>	Shinumo Wash	Primitive	1	and	1	17	A/L
BO9	Slate	Primitive	1	and	2	23	A/L
LL9	Snap Point	Primitive	1	or	2	12	A/L
BQ9	South Bass	Primitive	1	or	2	12	A/L
AC9	South Canyon	Primitive	1	and	1	17	A/L
LJ9	Surprise	Wild	1	or	2	12	A/L
AM9	Surprise Valley	Primitive	1	and	1	17	A/L
NJ9	Swamp Ridge	Primitive	1	and	3	29	A/L
BB9	Tanner	Primitive	1	and	3	29	A/L
AW7	Tapeats-Upper Tapeats	Threshold	1	and	2	23	D/S
AW8	Tapeats-Lower Tapeats	Threshold	1	and	1	17	D/S
AV9	Tapeats Amphitheatre	Wild	1	or	2	12	A/L
LC9	The Dome	Primitive	1	or	2	12	A/L
NB9	Thompson Canyon	Primitive	1	and	3	29	A/L
NM9	Toroweap Valley	Threshold	1	and	2	23	A/L
LF9	Trail Canyon	Wild	1	and	2	12	A/L
AQ9	Trinity Creek	Wild	1	and	2	12	A/L
NL9	Tuckup Point	Primitive	1	and	3	29	A/L
AG9	Unkar	Wild	1	or	2	12	A/L
AH9	Vishnu	Wild	1	or	1	11	A/L
NA0	Walhalla Plateau	Primitive	1	and	3	29	A/L
LI9	Whitmore	Threshold	1	and	1	17	A/L
NF9	Widforss	Threshold	1	and	2	23	A/L

<sup>1</sup> Primitive and Wild Zones are not recommended for use during summer months due to extreme high temperatures and the lack of reliable water sources.

<sup>2</sup> Party = 1–6 people

<sup>3</sup> Group = 7–11 people

<sup>4</sup> Special permits are required from the Navajo Tribal Parks Department for the Marble Canyon use areas: **SF9, SI9, SH9, SG9** and the portion of the use area **BA9** north of the confluence of the Little Colorado River.

# GRAND CANYON OVERVIEW

**RESTRICTED AREAS:** The following areas are closed to all camping but are available for day use:

Area	Name	Description
BSN	The Basin	North Rim
AK9	Clear Creek	From the Colorado River north, to the first major side canyon entering from the east
BA9 and AF9	Colorado River	No camping within 1/2 mile of Colorado and Little Colorado River confluence
AK9	Deer Creek	From Colorado River to northern end of narrows
BM7	Dripping Springs	South Rim
BR9	Elves Chasm	From Colorado River to the Royal Arch
BF5	Grandview Historic Mining District	Horseshoe Mesa
BT9	Havas Creek	In Grand Canyon National Park
LJM	Long Jim Canyon	
MAN	Manzanita	
BT9	Matkatamiba	Below the Redwall formation
BE9	Page Spring	East side of Horseshoe Mesa
AP9	Phantom Creek	Haunted Canyon below the Tapeats formation, Phantom Creek below the waterfall at 3600 foot contour
SG9	Redwall Cavern	Mile 33 on Colorado River
AB9	Saddle Canyon	Below the Redwall formation
AS9	Shinumo Creek	At Colorado River
AW7 and AW8	Thunder River	From drainage in Surprise Valley to confluence with Tapeats Creek
TRA	Transept	
TUS	Tusayan	
UNJ	Uncle Jim Point	

**CLOSED AREAS:** The following areas are closed to all use, including day use:

Area	Name	Description
BA9	Hopi Salt Mines	Along the Colorado River. Visitation permit required from the Hopi Tribe
AG9	Furnace Flats	North side of Colorado River at mile 72

**LENGTH OF STAY:** Camping in the Corridor, Hermit, Monument, Horseshoe Mesa, and Tapeats Use Areas is limited to designated campsites or campgrounds only and is limited to two nights (consecutive or non-consecutive) per campsite or campground per hike or up to four nights between November 15 and February 28. Outside these use areas at-large camping is limited to a maximum of seven nights per use area; however, overall trip lengths are not limited.

## **BACKCOUNTRY RULES AND REGULATIONS**

The Grand Canyon may at first glance appear to be a permanent and unbreakable landscape, but the reality is that it has a fragile desert ecosystem that can be damaged by careless use. The long list of backcountry regulations below may seem burdensome, but for the most part they embody commonsense practices to help preserve not only the resources but also the qualities of wilderness that visitors seek.

1. A Backcountry Use Permit is required for all overnight backcountry use and **MUST** be in your possession while you're in the backcountry. Permittees must abide by all trail closures and activity or use restrictions.
2. Permits are valid only for the trip leader, campsites, dates, and number of people specified on the permit. Groups must stick to the permitted itinerary.
3. You are required to carry out all of your trash, including toilet paper. Burning, burying, or leaving trash or toilet paper is prohibited.
4. More than one group from the same organization or affiliation camping in the same designated campground or Use Area per night is prohibited.
5. Incidental Business Permits are required for Commercial Use of the backcountry.
6. Wood or charcoal fires of any type are prohibited. Sterno or fossil fuel backpack stoves are permitted.
7. Use of biodegradable or any other type of soap in creeks or camping within 100 feet of any water source (except at designated sites) is prohibited.
8. Feeding, touching, teasing, or intentionally disturbing wildlife is prohibited.
9. Throwing or rolling rocks or other items down hillsides or mountainsides, into valleys or canyons, or inside caves is prohibited.
10. Leaving a trail or walkway to shortcut between portions of the same trail or walkway, or to shortcut to an adjacent trail is strictly prohibited.
11. Possessing, destroying, injuring, defacing, removing, digging, or disturbing from its natural state any plants, rocks, animals, mineral, cultural or archaeological resources, natural features, or signs is prohibited. Walking on, entering, traversing, or climbing on an archaeological resource is prohibited.
12. The use of motorized vehicles or wheeled devices, such as bicycles, motorcycles, baby buggies and similar vehicles, on trails below the rim is prohibited.
13. Overnight private stock use requires a Backcountry Use Permit. Use is restricted to trails and campsites designated for stock. Other domestic animals or pets are prohibited below the rim.
14. All weapons, traps, and nets are prohibited. Fishing requires a valid fishing license.
15. Because of their sensitive and sometimes dangerous nature, entry and/or exploration of any caves or mines must be approved in advance through Grand Canyon National Park.

## ***PACKRAFTING REGULATIONS***

At the time this book goes to press the official rule on the books stipulates that all river travel, including packrafting, requires a river permit. With that said, the Park Service recognizes packrafts as a valid means of transportation, and are accepting of their use. In fact, packrafting, and the rules governing them, is slated for inclusion in the next Backcountry Management Plan (BMP). As an interim measure the Park has adopted a policy allowing packraft trips of up to 5 miles, permitted in association with a backcountry permit. Unfortunately this restriction affects several of the trips described in this book that exceed this distance.

Given that this rule may undergo further changes before finalization, my suggestion is to inquire at the Backcountry Information Center regarding the regulatory status of packrafting and to be up front about your planned itinerary when obtaining a permit that includes river travel. Although packrafting is a relatively new activity in Grand Canyon, the rangers are quickly getting up to speed and several have considerable packrafting experience themselves. Personally, I and my hiking companions have had no difficulties



obtaining permits that included packrafting and have had ongoing discussions with the Park on the topic. Again, because it's not exactly clear where the demarcation line between backpacking and rafting exists you'll want to ask the rangers when in doubt.

The main issue with which the Park Service has to contend is the number of river use days, which are a highly prized, but limited resource. Contentious battles have been, and continue to be, fought between private and commercial groups over access to the river and packrafting could be seen as yet another (albeit small) competing interest.

One possible area where our behavior could help reduce conflict with rafting parties involves the availability of good campsites. Because river trips are large and require fairly sizable river-side camps, my suggestion would be to avoid these areas when selecting a campsite for the night. As packrafters and backpackers we have the ability to pack up our gear and hike to a location away from the prominent camps along the river. Also, because of our small group sizes, we can take advantage of little, out of the way sites that would not be suitable for a larger river trip.

Finally, get involved! The public will be invited to submit comments on the Backcountry Management Plan prior to its adoption. This process provides an excellent opportunity to become engaged in a decision that affects recreation in the Park in general and packrafting specifically. If you enjoy the hikes described in this book and the freedom afforded by a packraft, I'd encourage you to submit your comments and to advocate for the adoption of rules that allow for their use.



## Navajo Nation

The Navajo Nation comprises more than 25,000 square miles and includes the land east of Marble Canyon including the Little Colorado River gorge. Tribal parks, monuments and recreation areas are administered by the Navajo Parks and Recreation Department and offer hikers numerous isolated trails and routes. The Navajos are one of the few tribes that promote backcountry recreation on their lands and have put a very reasonable permit system in place to facilitate this activity. Please respect their property and be sure to get a permit and to follow all tribal rules. Keep in mind that this is private land and that backcountry hikers represent a miniscule revenue stream for the tribe. It is a privilege to be able to hike in these areas, one that could be taken away if the privilege is abused.

To complicate the permitting process, be aware that the areas below the rim in Marble Canyon as well as that west of the Little Colorado River fall within Grand Canyon National Park. Backpackers camping below the rim in these areas will need to obtain a permit from the National Park Service in addition to a permit from the tribe.

Navajo Parks and Recreation Office	Location
<b>Window Rock Office</b> P.O. Box 2520 Window Rock, AZ 86515 Telephone: (928) 871.6647 Fax: (928) 871.6637 E-mail: <a href="mailto:navajoparks@yahoo.com">navajoparks@yahoo.com</a>	The office is located between the Navajo Nation Museum and the Window Rock post office in Window Rock, Arizona. Information and permits can be obtained for hiking and camping on the south side of the San Juan River and Rainbow Bridge trails.
<b>Cameron Visitor Center</b> P.O. Box 459 Cameron, AZ 86020 Telephone: (928) 679.2303 Fax: (928) 679.2017 E-mail: <a href="mailto:lcr@navajonationparks.org">lcr@navajonationparks.org</a>	This visitor center is located at the junction of Highway 89 and Highway 64 in Cameron, Arizona. Information and permits can be obtained for trails along the Colorado River, Marble Canyon, Jackass Canyon, Salt Trail Canyon, Tatahatso Point, Rainbow Bridge trails, Cove Mesa, Coal Mine Canyon and areas in the western portion of the Navajo Nation.
<b>Antelope Canyon Tribal Park Office</b> P.O. Box 4803 Page, AZ 86040 Telephone: (928) 698.2808 Fax: (928) 698.3360 E-mail: <a href="mailto:ac@navajonationparks.org">ac@navajonationparks.org</a>	The office is located next to the LeChee Chapter House, which is 3 miles south of Page, Arizona on Coppermine Road (Navajo Route 20).
<b>Monument Valley Navajo Tribal Park</b> P.O. Box 360289 Monument Valley, UT 84536 Telephone: (435) 727.5870 Fax: (435) 727.5875	The office is located in the Monument Valley visitor center at Monument Valley, Arizona. Information and permits can be obtained for Rainbow Bridge trails, the San Juan River and the Oljato area.

## **BACKCOUNTRY PERMITS**

To hike or camp on Navajo land you will need to obtain a permit prior to your visit. The easiest way to acquire a permit is to stop at one of the Navajo Parks and Recreation offices listed below. The offices are open Monday through Friday from 8 a.m. to 5 p.m. during the fall, winter and spring (call for summer hours). After completing the paperwork and paying the required fees, you can depart with a permit in hand.

Permits are also available by mail, but the process is somewhat more cumbersome. First, you call or write to one of the Navajo Parks and Recreation offices listed above requesting a permit application. They'll send an application by mail, which you'll then complete and send back with the required fees. After processing the paperwork a permit will be mailed. Be sure to begin the process at least 3–4 weeks prior your trip to ensure the permit arrives in time.

### ***FEES (as of this writing)***

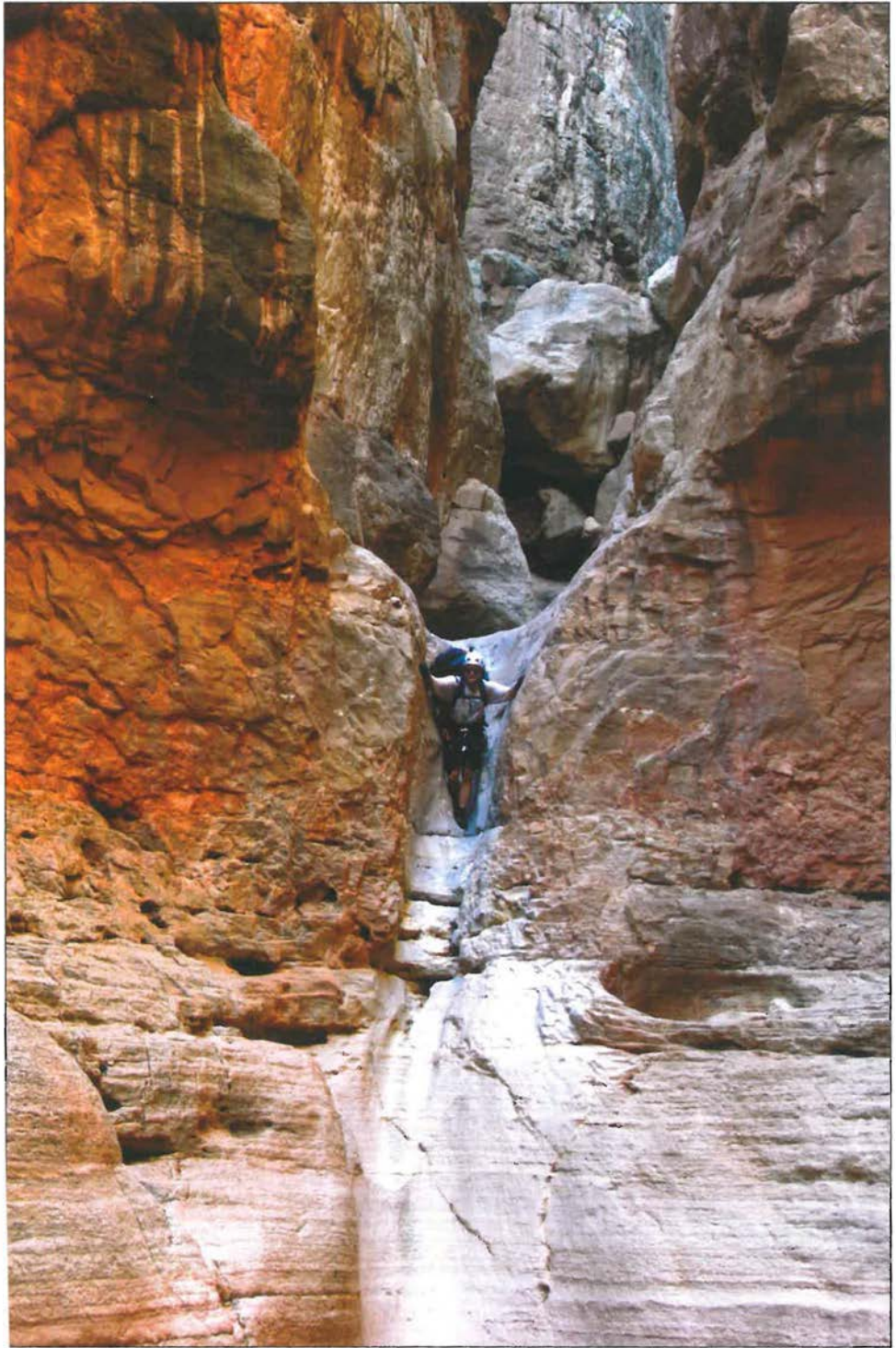
Backcountry permit fees for the Marble Canyon area are \$5 per person, per day and camping is \$5 per person, per night for anyone over the age of 6. Fees are subject to change and are non-refundable.

## **NAVAJO NATION BACKCOUNTRY RULES & REGULATIONS:**

Navajo Parks and Recreation has a few commonsense rules to follow (as well as a few that are unique to the culture) when recreating on tribal lands.

- Stay on designated trails and routes. Cutting switch backs damages trails and causes erosion and destruction of soil composition. It can take 100 years for soil and vegetation to recover from human impact.
- Respect the privacy and customs of the Navajo people. Do not wander across residential areas or disturb property. Obtain permission before taking pictures of the Navajo people.
- Whatever you pack into the wilderness, you must carry out. Nothing should be left buried or burned. Substances such as food scraps and garbage will take years to decompose. Also, wildfires may start as a result of burning trash.
- Pets are allowed only if on a leash at all times. The backcountry is open range for livestock.
- Navajo Tribal Code Title 17, Section 1451, prohibits the use of firearms.
- The Navajo Nation is not responsible for any injuries, accidents, or thefts of personal property during your visit.
- Fires are permitted only in grills, fireplaces, or similar control devices. No open ground fires. There is always a danger of wildfires.
- Do not disturb or remove animals, plants, rocks or artifacts. Tribal Antiquity and federal laws are in effect. Special permits are required from the Navajo Minerals Department and Natural Heritage Program to collect rocks or plants.
- Dune buggies, jeeps, 4-wheel drive vehicles and motorcycles are prohibited off established trails and roads. Unnecessary trails or roads result in erosion to the fragile environment.
- Consumption and/or possession of alcoholic beverages or illegal drugs are prohibited.





*Tatahatso Canyon*



## Havasupai Tribe

The Havasupai Indian Reservation consists of 289 square miles of land in and around Havasu Canyon in the western Grand Canyon on the south side of the Colorado River. This land lies outside the boundary and jurisdiction of the National Park Service and is administered by the Havasupai Indian Tribe. The tribe consists of about 650 individuals, approximately 450 of whom live in the village of Supai. Havasu Canyon (the only hike on Havasupai land in this book) is accessible by foot (an 8-mile hike), horseback or helicopter. A permit is required by the tribe to stay overnight in the canyon.

### **BACKCOUNTRY PERMITS**

All reservations must be made via telephone. Call one of the numbers below to reserve a spot at the campground or lodge. Be sure to have following information ready: desired dates, number of nights of camping, and number of people in your party. No fees are collected up front; instead, you'll pay at the camping office when you arrive.

Camping: 1-928-448-2121, 1-928-448-2141, 1-928-448-2174, or 1-928-448-2180

Lodge: 1-928-448-2111 or 1-928-448-2201

Make reservations early; they sometimes fill a year in advance during the more popular times of year. When you arrive in Supai, campers will need to check in and pay your bill at the tourist office located on the left side of the trail, as you approach the Helipad in the main part of the village. The office is open 7 days a week April–October between 7 a.m.–7 p.m. and November–March between 8 a.m.–5 p.m.

### **FEES (as of this writing)**

There are several fees associated with hiking and camping in Havasu Canyon. Visitors are charged a \$35 per person entrance fee. This fee is charged one time per visit. The campground charges \$17 per person per night and there is an environmental care fee of \$5 per person (refundable if you take a sack of garbage back out with you). Children 12 or under are discounted 50% and there is a 10% discount on groups of 15 or more. All fees are taxable by 10%. Those staying in the lodge are charged \$145 per night.

All visitors entering the Havasupai Indian Reservation are required to pay the applicable fees and check in upon arrival at the Camping Office in the village of Supai. A deposit may be required at the time of reservation.

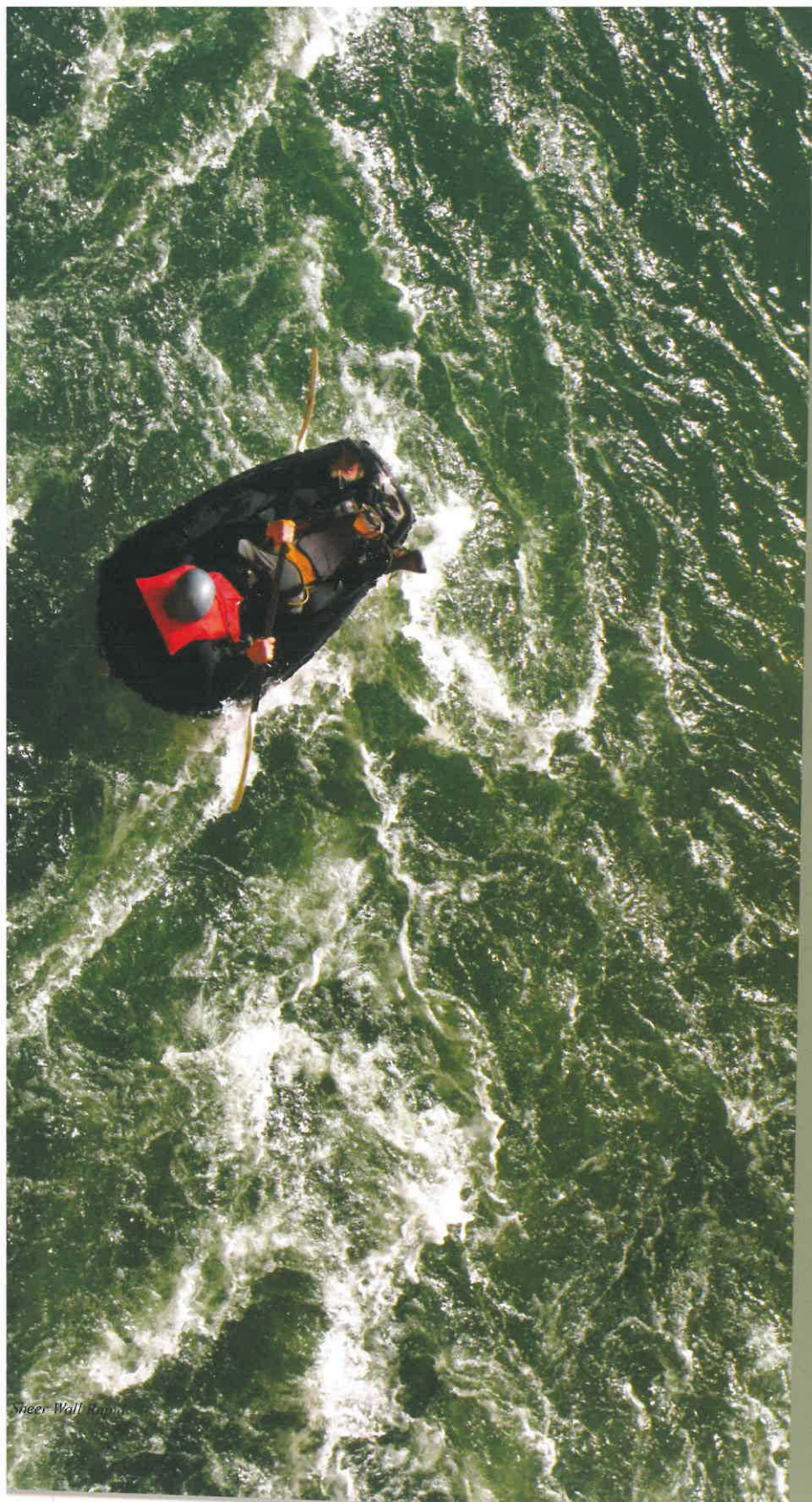
The campground offers spring water (treat or purify before consumption), composting toilets, and picnic tables. Sites are available on a first come first served basis. No campfires are permitted. All trash must be packed out of the canyon.

### **Havasupai Tourist Enterprise**

P.O. Box 160

Supai, Arizona 86435

<http://www.havasupaitribe.com>



# TECHNIQUES



## Packrafting

Packrafting is an activity that involves exploration both on foot and via lightweight inflatable boat. Though the sport has been around for a number of years, it's only more recently been gaining in popularity; and the Grand Canyon, with its barrier of the Colorado River, makes for an ideal location for its use. By allowing a hiker or canyoneer to cross and descend the river, a packraft opens up innumerable



possibilities for canyon descents and loop hikes, which would otherwise be difficult or impossible. At the same time, it also exposes the hiker to additional risks. It's my belief that the risks associated with packrafting can be effectively managed and the purpose of this section is to provide some suggestions to assist in a safe and fun trip. A further discussion of packrafting safety may be found in the section of this book that discusses dangers.

Though no formal regulatory framework exists for packrafting in the Grand Canyon, as an interim measure the Park has adopted a policy allowing packraft trips of up to 5 miles, permitted in association with a backcountry permit (for more information see the discussion of packrafting regulation found in the Permit, Fees and Regulations section). The use of packrafts is to be more formally addressed in the next version of the Backcountry Management Plan (BMP). Though it's not clear when this document might be finalized, it is my hope that packrafting will be embraced as a valid activity and that no undue regulatory burden be imposed. Until then, be open about your itinerary and plans when obtaining backcountry permits and be safe! Nothing invites regulation more than a few careless individuals who get themselves into a spectacular and highly publicized jam.

### ***THE COLORADO RIVER***

The Colorado River within Grand Canyon National Park is 277 miles in length and is 76 feet at its narrowest point with an average width of 300 feet. It has a maximum depth of 85 feet, but averages around 40 feet deep. There are over 100 named rapids within the Park and, while the rapids represent only 10 percent of the river's total length, they are responsible for more than half of the total 2,200 foot drop in elevation between Lee's Ferry and the Grand Wash Cliffs. The gradient of the river declines an average of 7 feet per river mile and its speed varies with location and the amount of water being released from the Glen Canyon Dam. When the dam is releasing 15,000 cubic feet per second, the river averages 2.3 miles per hour, increasing to 4.0 miles per hour when the dam is releasing 45,000 cubic feet per second. Water speed is also affected locally by the channel shape and slope of the canyon.

The dam not only dictates the rivers flow, but also the range of variability in flow. Before Glen Canyon Dam existed, the flow at Lee's Ferry varied from 700 to 200,000 cubic feet per second. Since the dam was constructed, present flows vary between 1,000 to 32,000 cubic feet per second. Another dramatic change since the dam was constructed is the temperature of the river. The pre-dam river temperature varied with the season from near freezing to 80°F. Today, water is released from Glen Canyon Dam through gates located about 200 feet below the surface of the lake. Waters originating from this depth result in a chilly yearly maximum water temperature range of 42°F to 48°F at Lee's Ferry.

## **PACKRAFTING**

Your basic packrafting kit will consist of a small inflatable boat, packable paddles, and a personal floatation device (PFD). The main considerations in choosing this equipment are weight, durability and price, with weight being the main factor. Packrafting equipment is discussed in more detail in the section on 'Gear' later in this book. In addition to the raft, you'll also want to carry something to keep your backpacking things dry while on the river. Given the fact that everything is likely to get wet, you'll want to store all critical gear such as food, dry clothes and sleeping bag in waterproof containers. A drybag or plastic keg work best for keeping gear dry, though, if nothing else is available, a plastic trash bag would be better than nothing.

Before we jump in, let's start off with a word about my nautical experience ... I have none! I began packrafting purely as a pragmatic means to circumvent the barrier of the Colorado River. At first this involved simple river crossings and later progressed to more elaborate trips involving several miles of river travel at a time. The suggestions documented in this section (and they are only suggestions) are culled from me and my hiking partner's experiences on these excursions. My mental state during these trips has been one of caution and respect for the power of the river, oh ... and fear ... hair raising, white knuckled, heart pounding, pant wetting, knot in the stomach ... fear. I suggest all adopt a similar attitude, it'll keep you alive.







**Basic Boat Care:** Although it's not necessary to treat the boat with kid gloves, basic precautions are essential in order to avoid undue wear and tear. Even the most durable of packrafts is prone to abrasion and puncturing.

Do not strap the raft to the outside of your pack where it may be subject to damage, instead roll it up and put it inside a stuff-sack (an old tent or sleeping bag sack will do) and store it inside your pack. In addition to the protection the pack offers from the outside world, the stuff-sack will help protect your boat from abrasion from items within the pack itself.

After inflation, be sure not to leave your raft unattended. The rafts are light, have a lot of surface area and can be blown away by light to moderate wind gusts. The rafts can be left for short periods by placing your loaded pack or a rock on top to hold them in place. Before launching, temper your raft by setting it in river and splashing water over the tubes to cool the air inside. Due to potentially large differences between the air and water temperatures, the air in the raft will cool and contract when the boat is in contact with the river. Failure to temper the boat may cause the tubes to deflate quite a bit leaving you up a creek with a floppy, half inflated raft. Along these same lines, once your raft is fully inflated be sure not to leave it out in the hot sun in case the air expands to the point where it bursts a seam.

Before getting into the boat, wade into the river a short distance to avoid weighting the floor or tubes against the sand or rocks. The same precaution applies when coming on shore. Instead of ramming the boat up onto the beach, simply hop out when the water becomes shallow and tow it ashore. If you have a hiking stick, make sure that the pointy end is buried deep within your pack or is orientated in such a way that it cannot puncture the boat. When portaging, it pays to carry the boat carefully around any jagged boulders, thorny plants, or trees with sharp branches that are typically found along the banks of the Colorado. When deflating and packing your boat up again, rinse as much sand off of the boat as you can, or let the boat dry and brush off the sand before stowing. Sand is abrasive and will slowly wear holes in the boat's fabric over time.

Boat manufacturers typically sell repair kits for their products and it's a good idea to carry one for in-field repairs of punctures or tears. Though I haven't tried it, I've heard that Tyvek tape (available in hardware stores) does quite a good job at providing a short-term

patch. Of course duct tape, which is universally regarded as capable of any repair, can also be used to temporarily mend a hole in a pinch.

**Communication:** Verbal communication on the river may be difficult due to distance and the sound of the river. For this reason, boaters have developed a few standardized signals as a way to communicate with other members of the team. These signals should be discussed and practiced ahead of time so that they are clearly understood by everyone in the group.

**GO!** Hold the paddle straight up in the air with your arm extended to signal the all clear for your group to go. You may also hold your fist up in the air to achieve the same signal.

**STOP!** Hold the paddle horizontally above your head to signal for the group to stop and hold their position. You may also extend your arms out to your sides.

**GO THAT WAY!** Point your paddle in the direction that you wish to direct others to go. Do not point to an obstruction or obstacle, since this may result in directing the rafting group straight into it.

**EMERGENCY!** Spin the paddle in the air above your head as if you were stirring the air to signal an emergency situation on the river or that you require assistance.

**PORTAGE!** Make an exaggerated walking motion with the hands and fingers in the direction of the side of the river on which to portage.

**LOOK!** May be used to point out obstacles or objects of interest. Put one hand over the eyes as if shading them from the sun while extending the other arm to point at what needs to be seen.

Do all of your signals high and in an exaggerated manner so that they are easily seen and clearly understood by all members of the group.

**Packrafting Tips and Techniques:** The following paragraphs provide a few tips I've gleaned from my experience using packrafts on the Colorado River. This in no way constitutes an exhaustive 'how to' manual, but hopefully it'll be of assistance in getting people started.

With all the preparation and safety stuff out of the way, the first order of business in a packrafting trip is to get in and out of the boat. Sounds easy? Think again. These boats are small and somewhat tippy. Uneven placement of weight in the raft is liable to spill you right back out again. First, place your pack in the bow (front) of the boat. I find that it's most stable with the bottom of the pack inside the boat with the back of the pack leaning up against the front tube. Some with Alpacka rafts may choose to lay the pack across the prow and lash it into place. With the pack in place, get into the boat. There are a number of techniques I've seen successfully employed, ranging from stepping to hopping to straddling to the slow lowering of the behind. Whichever method is used, it helps to practice ahead of time in safe and shallow water so that you develop the ability to get in and out quickly in both calm and choppy water.

Your body position within the boat will depend on the type of raft you are using and your body size. With the Sevylor Trailboat, place your pack in the front of the boat

(the narrow end) then yourself in the back with your legs on the tubes on either side of your pack. This will keep your center of gravity low, making for a fairly stable raft. The downside of this arrangement is that the stern tubes of the boat provide little in the way of back support and you'll find yourself in a somewhat tiring partial sit-up position. Smaller hikers can sit cross-legged in the space behind the pack, a position I find more comfortable since it enables you to sit upright. The downside is that it can be hard on the knees for long journeys and raises the center of gravity of the raft. Alpacka Packrafts are designed such that you can sit up with your legs fully extended in front of you inside the boat.

One of the most common rafting maneuvers involves ferrying the raft from one side of the river to the other in such a way as to minimize the distance traveled downstream as a result of the current. In addition to crossing, ferrying may also be used to better position you to navigate or avoid a rough stretch of water. Ferrying is most efficient when the boat is positioned at an angle of 45 degrees. This can be done by aiming the bow of the boat at a 45° angle upstream and paddling forward, called a "front ferry" or by positioning the stern of the boat at this angle and paddling backward, called a "back ferry". The latter technique is best used for situations where you don't want to take your eyes off of an obstacle that lies downriver.

As outlined in the section of the book relating to dangers, the best strategy to deal with whitewater is to portage around all rapids and larger riffles. While this solves one problem, it can create another in that large eddies sometimes exist at the tail end of rapids at the point where you wish to put back into the water. An eddy is a place where the current of a river slackens suddenly, or even reverses itself. Eddies are characterized by circular flow patterns and can make it difficult for a packraft to make progress downriver. The best strategy to break out of an eddy is simply to paddle hard until you can get back out into the current of the river. You can reduce the amount of effort by working with the natural circulation of the eddy, rather than trying to fight your way through it. If you're having trouble visualizing the motion of the water, throw a stick into the eddy and observe its direction of travel.

There are some situations where it's desirable to run a section of small rapids or large riffles. This includes the situation described above where the only way to break out of an eddy might be to paddle out into the tail end of a wave train. Because packrafts ride so close to the water, they are prone to being swamped by waves of small to moderate size. One thing that can help reduce the amount of water that gets into the boat is to back-paddle gently as you head into a wave. The goal of this maneuver is to match the boat's speed with that of the swell to keep the wave from coming over the bow. Though useful, this technique is not foolproof and invariably a wave will catch you by surprise and you'll become swamped. Once a boat is full of water it becomes heavy and difficult to maneuver. It's best to pull over to shore at the first convenient location and dump the water out whenever this occurs.

Another impediment to river travel in a packraft is strong winds, which, when they blow, seem to always blow upriver. Because packrafts weigh very little, a moderate or stiff breeze can reduce or stop all forward progress with attempts to paddle against a headwind quickly sapping strength. As an alternative, hold both paddles firmly underwater and position the blades at the best angle with which to catch the current. If the river is traveling faster than the raft the paddle blades will act as anchors in the current and pull the raft downstream. This technique will not overcome the effects of extremely strong winds that

form whitecaps and kick up sheets of spray. In these conditions it may be best to simply pull over to shore and wait for the breeze to die down.

The common English phrase “up a creek without a paddle” is used to describe an untenable situation. True to the idiom, losing one’s paddle while on the river does present a problem of the untenable variety. For this reason, don’t lose it! The Sevylor paddles come with lanyards and a plastic leash clip that can be used to connect them to the boat. Recognizing that these cords could present an entanglement hazard, it’s up to the individual user to decide whether the risk to reward ratio justifies their use. Those using paddles without a lanyard will want to try to hold onto them in the event the raft capsizes. Only let go of them if they provide a safety hazard. In the event a paddle is lost, look for other items that might be used as a substitute such as a flat piece of wood or a pot lid. As a last resort you can also lie flat on your boat, or kneel on it and paddle your arms in a swimming motion.

Finally, in more of an experimental vein, I thought I’d share a technique we’ve used to perform river crossings with a multi-person group using a single raft. As you might expect, this technique requires a line on the boat so that after a person crosses, those on the opposite shore can pull it back across so that the process can be repeated. We’ve successfully used a deep sea fishing reel with 700 feet of 135-pound test line for this purpose. Be aware that rope is too heavy for this technique and a lighter gauge of line may not have sufficient strength. The fishing line is tied to the boat and as the first person paddles across the line is deployed. In order for this to work correctly, there must be a clear path between the banks of the river so that there is nothing to snag the boat or the line (that includes any raft traffic that could become entangled in the fishing line as they pass). In addition, the paddler needs to cross without drifting too far downstream. It helps to choose a relatively mellow section of river to cross and to front ferry at a 45 degree angle. This technique will absolutely fail if the paddlers distance exceeds the length of the fishing line. Why go to all this trouble to simply cross the river? The main advantage of this system is as a means to save weight. Consider a group of five hikers, each carrying a 4-pound packraft. By eliminating four of these rafts (and adding the weight of the rod and reel) it is possible to save approximately 14 pounds of weight or almost 3 pounds per person.



*Fully geared packrafter*



## Canyon Techniques

The purpose of this section is to introduce some of the techniques and terms that are utilized throughout the rest of this book. Please be aware that this is not a 'how to' manual for the instruction of canyoneering technique and is not intended to be comprehensive. It is merely an overview of the types of skills that all canyoneers attempting these hikes should be familiar with.

The overriding consideration in descending a canyon should be the safety of the group. Each obstacle should be solved using the technique that maximizes safety of the team, and minimizes damage to the canyon. Style points, such as keeping feet dry or rope placement to enhance photography come in a distant second.

At the risk of repeating myself, it is up to the individual to obtain training and master these techniques prior to entering a canyon.

### ***KEEPING YOUR GEAR DRY***

Keep all your critical gear in waterproof containers. Dry bags can leak, so it helps to either double dry bag those items necessary for survival or use a waterproof plastic keg. Dry bags or kegs provide the additional advantage of adding floatation to your pack, a feature that is essential for long swims. With a buoyant pack, you can swim by either lying on top of it and kicking, or wearing it with the hip belt fastened and doing the back stroke. Some individuals attempt to keep their entire pack dry by carrying an inflatable boat or inner tube to float their pack across pools. This strategy can be successfully employed in some situations; however, because floatation devices are heavy, awkward to carry and easily punctured, they are of limited effectiveness in canyons.

### ***DOWNCLIMBING***

Whenever a drop-off is encountered the first decision that a group must make is whether it can be safely downclimbed or if rope is required for a rappel. Downclimbing can often be quicker than rappelling (an important consideration for long trips or large groups); however, this decision must take into account the difficulty of the climb, as well as the skill level and risk tolerance of the group. To improve safety, a group may consider belaying members of the group from above or spotting them from below. Spotting usually involves one member of the group standing beneath the climber in order to prevent an awkward fall. In canyons, where rock is often slick, the spotter can also provide the valuable service of assisting with footholds and traction, by holding the climber's foot securely in place.

### ***KNOTS***

There are entire books published on the art of knot tying and there are dozens of knots that are applicable and useful in a canyoneering context. Note: For the knot aficionados out there, I am using the term 'knot' generically to refer to any bend, hitch, stopper, loop or messy snarl. A good knot reduces the breaking strength of a rope as little as possible, is easy to remember, is easy to tie and is easy to verify that it is tied correctly. In addition, it should be secure enough not to come loose, and easy to untie even after being weighted under a heavy load. In order for a knot to function properly, it must not only be tied correctly, it must also be dressed. All loose ends of the knot should be pulled taut so that no slack exists.

An excellent resource for learning how to tie knots may be found on the Animated Knots by Grog website at: <http://www.animatedknots.com>

## ANCHORS

Probably the most important group of decisions a technical canyoneer will make involves rigging of the rope. A key decision that must be made in this process is selection and evaluation of the rappel anchor.

**Existing Anchors:** More often than not, upon arriving at a drop-off, the rappel will be pre-rigged with webbing from the previous party. Canyoneers are often far too trusting when it comes to the use of existing anchors in a canyon. Just because the previous group used a particular anchor does not mean the correct choice was made. If you decide to re-use existing anchors, they should always be thoroughly evaluated prior to use. Be sure to look at both the anchor itself and any existing webbing. Inspect all aspects of the system looking for the weakest link. Many pieces of poor webbing do not make a strong anchor, and make the anchor hard to inspect. Reduce the system to its simplest configuration and do not hesitate to replace webbing, rings, or construct an entirely new anchor if you are not comfortable with it.

It is not uncommon for canyoneers to re-use webbing left by a previous group. Unfortunately, it is almost impossible to evaluate the strength of webbing that has been left outdoors. Webbing exposed to sunlight for long periods can become brittle and faded. Sunlight breaks down nylon and will weaken it significantly. In addition, mice and other rodents are known to chew on webbing and line their nests with the fibers. The safest course



*Webbing strength can be compromised by sunlight, floods, time and rodents.*

of action is to replace all webbing at every drop in a canyon. Webbing is cheap compared to an extended stay in the hospital! Damaged or faded webbing should never be re-used. If you choose to re-use existing webbing, inspect every inch of the sling, including the knot.

**Natural Anchors:** Natural anchors can consist of any solid natural object, such as a tree or rock that the canyoneer can use to support their weight during a rappel. The main thing to consider in the use of natural anchors is the ability of the object to safely support your weight. The ideal anchor is a solid object that is at least as strong as the rope itself and should have smooth rounded faces with no sharp edges. The next point of consideration is the ability to retrieve your rope once everyone is down. The anchor and surrounding area should be evaluated for objects that could snag the rope during the pull.

Trees are found in some canyons and can provide excellent rappel anchors. A simple push/pull test can be performed to determine whether the roots are solidly anchored. To prevent damage to the bark of the tree as a result of pulling rope, it's best to use webbing around the tree rather than pass the rope around the tree directly. Ropes placed around a tree will strip the bark when the rope is pulled, eventually girdling the tree and killing it. When evaluating trees for use as anchors a live tree is better than a dead one. The base of the tree will be the strongest location to place the webbing, however, for large, sturdy trees it may be desirable to place the webbing higher on the trunk to allow for a smoother rope pull. Be sure to tie webbing around a tree in a manner that will not constrict its growth.

Large boulders can also be used for rappel anchors. The boulder should be large enough so that it cannot be moved even when shock loaded. When slinging a boulder, make sure the webbing cannot slip off the top of the boulder or around the sides. Check the direction that the sling will be pulled when loaded to ensure it is pulled into a more secure location rather than a less secure one. Placing a sling around a very large boulder can require a considerable amount of webbing.

An alternative to using the entire boulder as an anchor is to look for pinch points where the boulder makes solid contact with the ground, another boulder or the canyon wall. Pinch points should only be used when both objects forming the pinch are solid and in direct contact with one another. A pinch point only requires one of the objects to move a small amount to cause the anchor to fail. Very large boulders, or solidly wedged chockstones can create excellent pinch points. When looking for a suitable location, scan around the base and sides of the boulder. Pinch points can often be obscured by dirt and other debris. The use of a stick or your fingers to clean out pinch points is recommended in order to confirm that the pinch is formed by solid points of contact.

Other natural anchors include natural arches, rock horns, or fallen trees. The same considerations exist with these objects as those discussed above. The anchor should be solid and slung so that the webbing will not slip off the object when weighted. Care should also be taken to ensure that use of a particular anchor does not harm unique natural features. Unless no other option exists, do not rappel on objects that will be damaged by pulling the rope.

**Constructed Anchors:** When no obvious natural anchor exists, it may be possible to build one using natural materials. Constructed anchors typically fall into two categories, bollards and chocks. These anchors are briefly described below since they may be encountered, or required upon occasion. It should be noted, however, that anchor construction is considered

a more advanced technique and requires the canyoneer to consider the complex interaction of variables such as force, friction, direction and loading. The canyoneer should gain the requisite skills prior to attempting canyons requiring anchor construction.

A bollard is an anchor created out of a pile of whatever material is at hand. The most common type of bollard (sometimes referred to as a dead-man anchor) is created by hitching a sling around a thick branch or large rock, then piling a sufficient mass of rocks on top of this anchor, or burying it to a sufficient depth, so that it can support the weight of the canyoneer on rappel. This type of anchor can be quite secure if constructed properly, however, it has the disadvantage that once constructed; it can be difficult or impossible for subsequent parties to inspect the webbing fully without completely dismantling the rock pile or digging up the anchor.

A natural anchor may also be created through the use of a jam or chock. A chock is an anchor created by placing hardware or software in a natural constriction that is too narrow to permit the object to pass through (such as a crack in the rock). Hardware can take the form of climbing gear such as nuts, hexs and cams or natural hardware such as a thick branch or rock. A typical example of the latter is the placement of a large branch across a doorway-like constriction in the canyon or use of a rock as a chock in a V-shaped notch. A chock can also be created from a knotted piece of webbing, cord or rope to create an anchor called a knot chock. Knots commonly used are the overhand, and figure eight. Chocks need to be placed correctly in order to be secure and should only be used in rock that is strong enough to support the weighted load. Be aware that chocks are highly dependent upon the direction in which they will be weighted. Check the direction that the chock will be pulled when loaded to ensure it is pulled into a more secure position rather than a less secure one. In the case of a rock in a V-shaped notch, the force should pull the rock directly into the jam. A force that pulls the rock to the side or back from the notch could also pull it into an unstable position and cause failure. Chocks should always be backed up with a second anchor or with a body anchor (for all but the last person) to make the system redundant. If using a knot chock check the knot after each rappel to make sure the knot has not cinched down to a point that it is small enough to slip through the crack. A well placed chock can act as a very secure anchor, but because of the factors discussed above should be considered an advanced technique.

**Anchor Redundancy:** In instances where it is difficult to evaluate the strength of an anchor, it may be desirable to add redundancy so that if any one part of the anchor fails, a backup exists. With redundant anchors it is best to size the sling so that the weight of the load is split evenly between the two anchors. An unevenly loaded anchor may be more prone to failure. Unless no other option exists, redundant anchors should never be used to link together a series of marginal anchors in the belief that several poor anchors make a single good one.

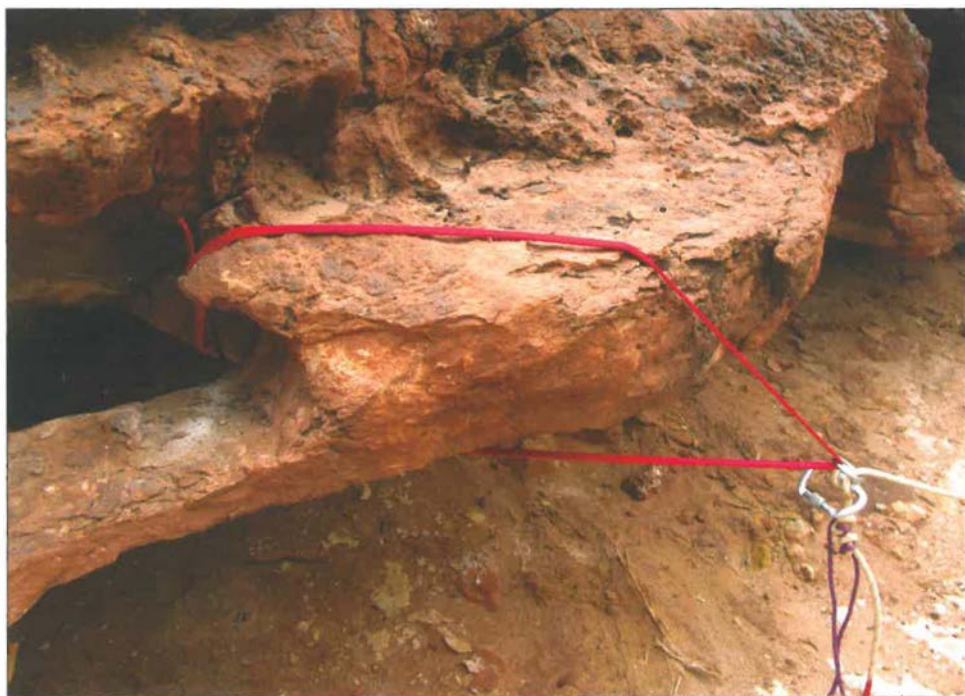
Another means of backing up an anchor whose strength is unknown is through the use of a body anchor. In this scenario, one member of the party places themselves in a secure position (usually lying down and braced against a rock or other natural feature). They then connect a sling or runner from their harness into the anchoring sling, so that if the anchor fails, the weight of the load will be transferred to their body. Obviously the person acting as the back-up anchor needs to be positioned very securely and the sling or runner should be taut to minimize shock loading in the event of anchor failure.



## NATURAL ANCHORS:



*Retrievable boulder anchor*



*Natural Arch*



*Rock wedged in a crack*

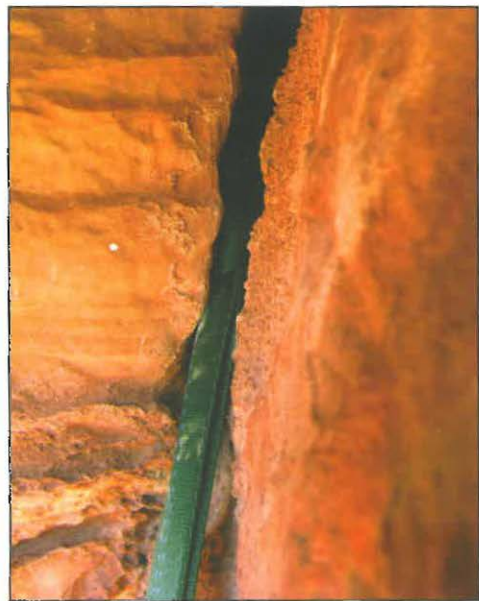


*Rock pile (bollard)*





*Tree anchor*



*Knot chock*



*Pinch point*

## ARTIFICIAL ANCHORS:

*Bolt and hanger*

**Body Belays:** Body belays may be used for short drops in a last-man-at-risk situation. In this scenario the human anchor (typically the best climber in the group) secures the rope to their harness either using a knot or through their belay device and situates themselves in a secure position. Members of the group rappel from this human anchor, and once everyone is at the bottom, the last man climbs down the obstacle with a spot from below. This technique also works well to assist less experienced members of your group down an obstacle they do not feel confident downclimbing themselves.

**Simul-Rappel:** A simultaneous rappel (or simul-rappel) is another form of human anchor. This technique is typically performed by looping the rope around a natural feature such as a rock horn or tree. Two canyoneers then rappel from each side of the rope strands, each canyoneer acting as a counterbalance for the other. This is generally considered a more advanced technique and the canyoneers need to be in constant communication with each other to ensure that they are both placing enough force on the rope to secure the other person until both are at the bottom. Be aware that this technique doubles the forces that the rope must support.

**Artificial Anchors:** Artificial anchors are manufactured objects that are permanently placed in the canyon for use as a rappel anchor. Typical artificial anchors include glue-in or expansion bolts and pitons. As discussed in earlier chapters, artificial anchors are a controversial topic within canyoneering circles. The general consensus that is developing is that artificial anchors should only be used as a last resort when the safety of the party is at risk or in special cases of high use areas to minimize other damage that may occur to the canyon. Bolts, once placed, permanently alter the canyon and dispel the wilderness character canyoneers are seeking.

There are several myths regarding artificial anchors that are worth dispelling. First, that artificial anchors are inherently safer than natural anchors. This is simply not the case, particularly in canyons carved from sandstone. Sandstone is a very soft stone



making secure placement of bolts a challenge, particularly in areas subject to forces of erosion. Once placed, it is also very difficult for subsequent canyoneers to evaluate these types of anchors for safety, as opposed to a large tree or boulder whose solidity is often easy to determine. Because bolts cannot be directly evaluated it can lead to subsequent parties installing additional bolts of their own and the proliferation of bolt “gardens”. This brings us to our second myth, that more bolts are better. There are two problems with this assumption, first, many bolts placed in close proximity to each other can actually fracture and weaken the rock around them, increasing the chance of failure. Second, a profusion of bolts and slings can create a mess making the anchor more difficult to inspect.

The above discussion is not intended to suggest that bolts or pitons are inherently unsafe, only that natural anchors can be equally as safe, and have the added advantage that they do not permanently alter the canyon or detract as much from its wilderness character. Artificial anchors can be reliable if placed correctly and are found in several of the canyons described in this book.

**Rope Placement:** The placement of the rope to ensure a clean pull is another important factor that should be taken into consideration in the selection and rigging of the anchor. When picking an anchor, scan the area for pinch points, branches or rocks that might snag your rope during the pull and hamper its retrieval. Rig the rope so that its path is as unimpeded as possible all the way to the bottom of the drop. In some situations, a pinch point may be avoided by extending the webbing past the obstacle. If it cannot be avoided it may be possible to wedge rocks or branches in the pinch point to make it smoother. If using a heavy object like a branch or rock, be sure it is secure and cannot become dislodged and fall on those below. The last person down has particular responsibility to ensure the strands of rope remain untwisted and that the rope is placed to avoid any obstacles. For this reason it is often a good idea to have one of the more experienced members of the party descend last.

Another consideration in rope placement is the avoidance of sharp edges or rough rock that can abrade the rope or cut into the sheath. Though this scenario might seem like an overused plot device in a cheesy action movie, it presents a real danger and should be factored into the decision for anchor selection. If a sharp edge is near the top of the drop, it might be possible to pad the edge using a rope pad or pack. If the edge is in a location such that padding it is impossible, the rope should be reset between each descent to change the point of contact with the rock. This is one reason why static ropes are preferred over dynamic ropes for canyoneering. Dynamic ropes have a high degree of stretch and can bounce quite a bit while rappelling, creating a sawing action on sharp edges.

**Contingency Anchors:** A contingency anchor consists of a load-releasing hitch that allows an individual on rappel to be quickly lowered from above in the event they encounter difficulty. The use of this technique is essential when rappelling in a waterfall or when swift water conditions are present.

There are several methods of constructing a load-releasing hitch. One option is through the use of a Munter hitch on a carabineer secured with a safety knot (often a mule knot or two half hitches). The subsequent loop of the safety knot is then secured with a carabineer to the anchor to avoid accidental release. In the event of an emergency, the safety knot is released and the individual on rappel is lowered on the Munter hitch.

The contingency anchor is left in place for all but the last rappeller (the most experienced member of the group), who must break down the system and re-rig for standard rope retrieval.

## **RAPPELLING**

Rappelling is the skill of safely descending a rope and is a technique that should be mastered in a controlled environment before applying it in a canyon where the complicating factors of water, awkward starts and slick rock can add significantly to the difficulty. It is assumed that anyone attempting the technical hikes in this book is experienced in rappelling; however, the following list includes a few basic safety tips.

The combination of differences in elevation and loose debris can create a danger of rockfall at each rappel point. The area at the base of a rappel where the highest danger exists is called the rockfall zone. This area is roughly defined as the landing area of any item dropped from any point at a rappel. The highest percentage of vertical accidents occurs from rockfall. The only time a canyoneer should be within this zone is during the rappel. After disconnecting from the rope at the bottom of the rappel, immediately move outside this zone to a safer location. Those at the top of the rappel have the responsibility to stay back from the edge of the drop to avoid dislodging rocks that could prove to be a hazard to those below. If a rock or any other object, is accidentally dislodged, immediately sound the alarm by shouting the “ROCK!” warning described below.

Everyone in a canyoneering group should be familiar with the verbal commands that will be used during the trip when rappelling. At a minimum, the group should be familiar with the following commonly used commands:

- “ON ROPE!” Used to announce that the canyoneer has rigged the rope through their rappel device and is ready to rappel. Those at the bottom of the rappel should be clear of the rockfall zone. Those at the top should be back from the edge to avoid dislodging loose material onto the canyoneer.
- “OFF ROPE!” The command used to indicate that the canyoneer has reached the bottom of the rappel and is clear of the rockfall zone. The rope may now be used by the next canyoneer at the top.
- “STOP!” Command issued to the canyoneer on rappel to get them to immediately halt their descent. It is typically used to indicate that there is a problem, such as tangled rope or other obstacle that will impede the canyoneer’s descent.
- “ROCK!” Used to communicate the danger that a rock has been dislodged to warn the canyoneers below.
- “HELP!” Used by the canyoneer on rappel to communicate that assistance is needed.
- “ON BELAY!” Response to the “ON ROPE!” call if a bottom belay (described below) is employed.
- “BELAY!” Call for a bottom belay to be applied.

Commands should be communicated loudly and clearly, and the individuals who are the intended recipient of the command should respond with an “OK” to confirm that the command has been heard.



*Master all techniques prior to entering a canyon*

In a wet canyon, the water noise can make verbal communication difficult or impossible. In this situation canyoneers should employ hand signals or use a whistle to communicate. As with the verbal commands above, the meaning of the signals should be worked out amongst the group in advance.

**Friction:** Rappelling involves the use of friction to oppose the force of gravity and control a body's descent. One of the key skills in rappelling is the understanding of how each rappel device behaves when rappelling on a particular diameter of rope. The canyoneer should also know how to increase or reduce friction in response to a particular scenario. This can often be done by rigging the rappel device in a different configuration or adding or removing other devices used in combination to create additional friction.

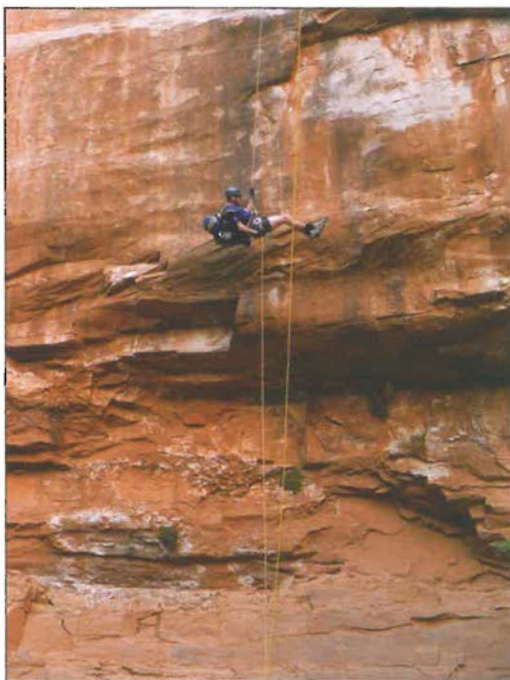
Friction can also be added by another member of the group through the use of a bottom belay (also called a fireman's belay). A bottom belay can be applied by pulling tightly on the rope from below while a canyoneer is on rappel. This action will result in slowing or halting the descent of the canyoneer and is often used for novices when they do not have confidence that they can control the speed of their descent. Care must be taken by the individual who is rappelling not to dislodge material onto the person performing the belay, especially if they must stay in the rockfall zone to provide this service.

Regardless of the type of rappel device used, rappelling should be done in a smooth and controlled manner. A smooth rappelling technique puts less strain on all components



of the system, creating a safer descent. Bouncing creates additional stresses that can cause anchor or component failure. The speed of a rappel is up to the individual; however, a good rule of thumb is to rappel no faster than you would be able to land without getting hurt.

**Remaining Right-side-up:** Rappelling while wearing a heavy pack can create additional problems, particularly if the drop is free-hanging (no part of your body is in contact with the rock). A heavy pack raises the hiker's center of gravity making it harder to remain upright while on rappel, or worse, causing the person to flip upside-down. This situation may be avoided by suspending the pack from a sling connected the harness or leg strap so that it hangs below you (at or just below foot-level is ideal). When hanging a pack some care is required in order to keep the rope and pack from becoming entangled.



## PHOTOGRAPHY

Wet and sandy canyons are hostile environments for delicate electronic devices and have claimed many a camera. These challenges are usually addressed in either one of two ways; by keeping the camera in a waterproof container, only taking it out when a photo is desired, or through utilization of a waterproof camera or camera housing. The first strategy has the advantage that it doesn't require the purchase of new and expensive photography equipment. Many find it to be rather inconvenient though, since it necessitates stopping to dig out the camera every time a photo is desired. Those employing this strategy typically either don't take many pictures or require extra time to descend a canyon (something a group may or may not be prepared to accept). Canyoneers who enjoy photography often adopt the other strategy by using a waterproof point and shoot digital camera or by purchasing a waterproof camera housing. In addition to being impervious to water, these cameras have the added advantage of being immune to fine sands that can jam moving parts. With a camera selected, here are a few photography tips to help get you started:

- Avoid high contrast scenes such as those with direct sun and/or dark shadows. The results are always disappointing.
- Look for areas lit with reflected sunlight. Not only with this reduce the contrast, it will also allow you to take advantage of the glow thrown off by the canyon walls.
- Cloudy days are best for providing even lighting to a scene
- Low light conditions will require the use of very slow shutter speeds which can result

in blurring for hand held photos. A lightweight tripod might be worth carrying to get clear pictures in these situations. For those who can't be bothered with the weight and inconvenience, natural features such as rocks or the canyon walls can be used to stabilize the camera while taking a photo.

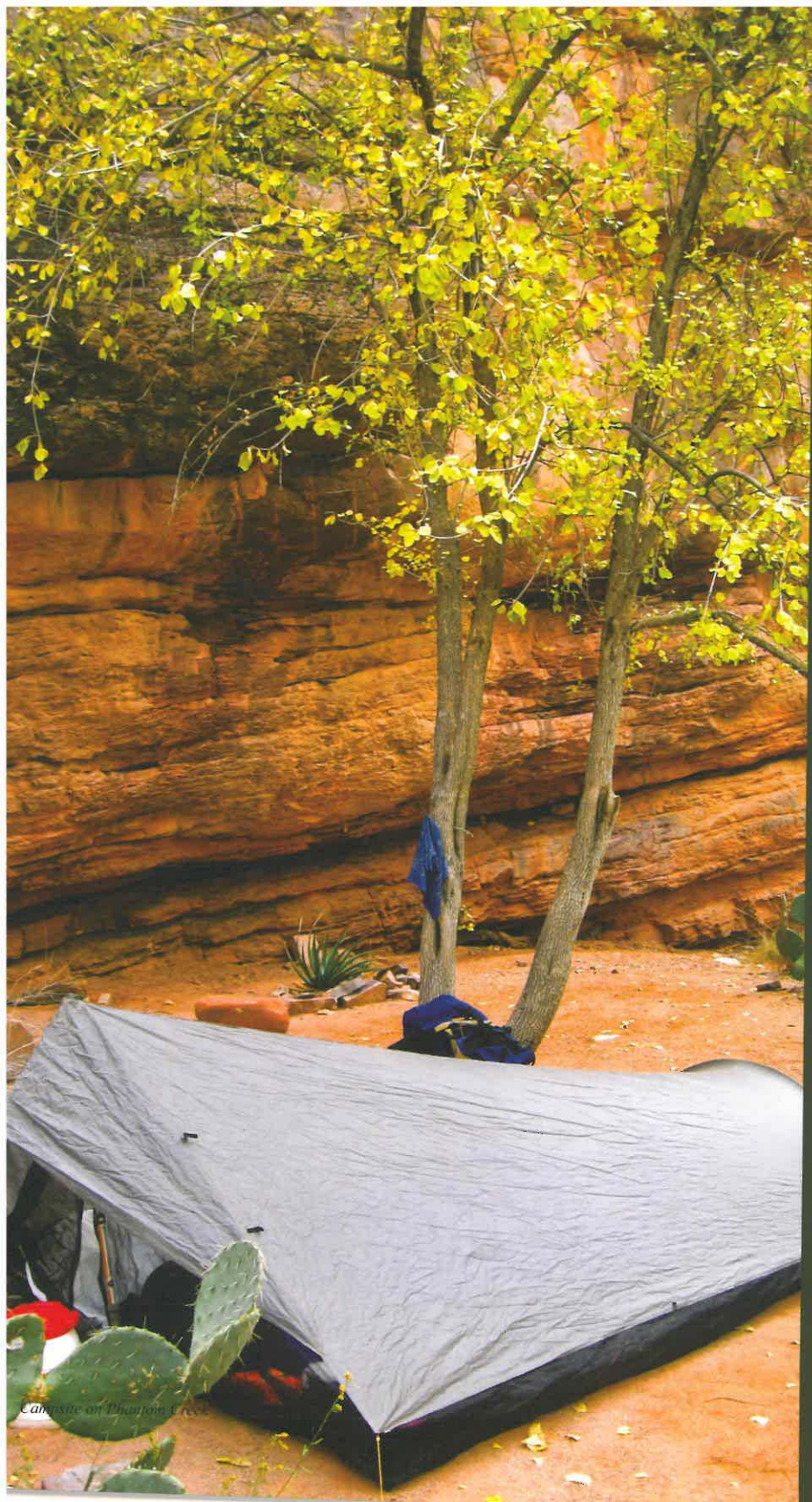
- When composing the scene you are photographing, mentally divide the picture into a grid consisting of nine segments (three rows, three columns). Place the main subject of your photo into the segment which lends itself best to the composition. Photos with the subject in the center of the picture every time quickly become tiresome. Experiment with different compositions to add life to the scene.

Arizona native Barry Goldwater worked as a photographer and film maker for several years before entering the world of national politics. Many of the pictures that he took of Native Americans during this period are now considered to be valuable documentation of a way of life that has since ceased to exist. You may consider the photos that you are now taking of wild areas to be a form of documentation for future generations of what was lost in the short sighted pursuit of profits and convenience.



*Bighorn at Siesta Spring near Cranberry Canyon*





*Campsite on Phantom Creek*



## Gear

Like it or not, technical canyoneering is an equipment intensive sport that requires an initial investment in gear in order to participate. Fortunately, because it is a team endeavor, some gear can be shared, and not every member of the group needs to be completely self sufficient. The following equipment is commonly utilized in canyoneering. I've also listed a few of my gear choices for those interested.

## ASCENDING GEAR

Although canyoneering involves descending canyons, ascending gear is an important and often overlooked article of safety equipment that can prove to be invaluable if the trip does not go as planned. If the rope pull passes over an area of high friction, ascending gear may be used to provide additional force to assist in retrieving the rope. In the event that the rope sticks, it may be possible to ascend the rope (assuming it is safe to do so) in order to place it in a better location that avoids the snag. Ascending gear may also be used in certain rescue situations to create a portion of a hauling or lowering system. There are many different types of ascending systems to choose from. The simplest and lightest can be created from a few prusik cords and slings. More advanced systems involve the use of aluminum cams or handled ascenders. The tradeoff associated with this gear is usually one of weight versus ascending efficiency. Since ascending is rarely a planned part of a canyoneering trip, a basic ascending system will usually suffice.



## **BACKPACK**

There are a few manufacturers who specialize in backpacks designed specifically for canyoneering. These are divided into two main types of packs, those that are constructed like drybags to be completely waterproof, and those that are designed to take on and drain water quickly. The drybag type packs have the advantage that they allow all gear to remain dry and naturally float due to air trapped in the pack. They are somewhat inconvenient, though, in that they must be unrolled and rolled every time something inside the pack is needed. They also run the risk of complete failure if a small hole develops. For these reasons, most canyoneers opt for a pack that drains quickly. These packs are usually equipped with mesh panels or series of grommets that allow water to quickly leave the pack. For those unwilling to spend the money on specialized equipment, any pack can be converted for use in canyoneering by installing grommets in the pack's bottom panel – the more grommets the better. Be aware that some types of packs use open cell foam as padding in the hip, shoulder and back panels. Open cell foam will hold water, adding unnecessary weight to your pack and should be avoided.

I carried an Imlay Canyon Gear – Heaps Pack on all backpacking trips for this book. In addition to the fact that it drains water quickly, I've found it to be an extremely durable and versatile pack (though it does not qualify as lightweight).  
Imlay Canyon Gear: <http://canyoneeringusa.com/>

## **CARABINERS**

Each canyoneer should carry a few carabiners clipped to their harness. Carabiners are used for important connections, such as at the anchor point or a belay device, as well as for creating carabiner blocks and for connecting items to your harness or pack. Whenever the device is used as part of a system on which your life depends, such as an anchor, belay or rescue system, a carabiner with a locking gate should be used. Locking carabiners have a metal or plastic sleeve that prevents the gate from opening and generally fall into two categories, autolockers and screwgate. Autolockers are generally considered unsuitable for use in a canyon environment, where sand and dirt can jam the closing mechanism. For this reason almost all canyoneers prefer the screwgate locking type. Keep in mind that the threads of the screw must be kept clean for the gate to function properly.

## **DRY BAG OR KEG**

A dry bag is a fabric bag made out of waterproof material such as vinyl or coated nylon that seals in a water resistant manner. Kegs are made of hard plastic and feature a screw-on lid fitted with a rubber O-ring to make it water tight. Canyons can be wet environments. Some things that might be carried on a canyoneering trip don't appreciate getting wet, like sleeping bags, paper maps, cameras or your lunch. These items should be placed in a dry bag or keg to prevent them from becoming wet. Dry bags and kegs also trap air and provide floatation to your pack, which both keeps it afloat and makes swimming easier.

## **EMERGENCY BOLT KIT**

Those reading up to this point may be surprised to find a bolt kit listed as part of an equipment list. The key word in this context is 'emergency'. Some canyoneers carry a bolt kit as safety equipment in the event that the canyon has changed or an anchor is destroyed. Others never carry a bolt kit, fearing that it increases the chance of bolts being placed

unnecessarily. It is up to each team to decide for themselves whether or not to carry a bolt kit. If one is carried, it should remain in the pack and only be used in the event that the safety of the group is at stake and all other options have been explored. Remember that when you install a fixed anchor, such as a bolt, you are permanently changing the canyon. As with many techniques previously mentioned, placing bolts requires skills that should be practiced outside of the canyons. A poorly placed bolt is very bad form and could result in injury or worse. If, as a last resort, you do place a bolt you should do yourself (and all others that come after you) the honor of using high quality hardware appropriate for the rock type in which you are drilling.

## **FOOD PROTECTION**

Creatures in the Grand Canyon are hungry, clever, and they know that you are carrying good things to eat. They will use all of the resources evolution has provided to pilfer it from you including gnawing through your tent, pack, food bag and any associated packaging, and will thank you for it by pooping all over everything in the process. The prime offenders are deer mice and rock squirrels, followed closely by ravens and ringtails. Though these creatures may be found throughout the canyon, they are mainly a problem at popular campsites and beaches regularly frequented by hikers and rafters.

Never feed wildlife, they don't need handouts. When people feed wildlife, the animal becomes habituated to that source of food. This can put the animals at unnecessary risk by disrupting their natural survival instincts and can lead to aggressive behaviors that result in conflicts between wildlife and humans and potentially the death of the animal.



*Thwarting our arch nemesis (Photo by Rich Rudow)*



In addition to withholding handouts, hikers will need to actively protect their food to prevent it from being stolen. Never leave food unattended, even if it is in your pack or tent. Nylon is a trivial barrier that is easily overcome by a rodent's sharp incisors. Instead, all food items, and anything else that an animal might mistake for food (aromatic items such as sunscreen, toothpaste, food utensils, etc.), should be kept in animal-proof containers in camp or anytime you are away from your pack. Maintained campsites at Indian Garden, Bright Angel, and Cottonwood campgrounds have metal ammunition cases for this purpose. Backpackers who are camping at other locations will need to bring their own protection.

Items that provide an effective animal barrier include metal cookie or pie tins, plastic waterproof canyon kegs, and cooking pots with lids (place a rock on top for added security). There is also a commercial animal barrier on the market that consists of a bag constructed of knitted wire mesh. I've had excellent success with this product.

Hanging food is another option, but far from foolproof given that trees may be in short supply in some areas of the Grand Canyon and the fact that ravens are capable of flight. If you do choose to hang your food, I would recommend punching a hole in the bottom of a plastic or metal tuna container and threading the cord through in such a way that the container hangs suspended upside-down above your food bag. A knot in the cord will keep the tuna container from slipping. Mice are very good climbers but they will have a difficult time getting past the tuna container without being spilled off.

Regardless of the food protection method used, be sure to remove all food from your pack at night. It's also a good idea to leave all pockets and compartments unzipped in the event that any odors have permeated the pack fabric. Open pockets will allow potential thieves to satisfy their curiosity without resorting to gnawing your gear.

**Foodsack:** <http://www.packerlandglass.com/foodsack.html>

## FOOTWEAR

Canyoneering involves a near constant mix of climbing, scrambling and rock-hopping, often on wet water-polished surfaces. Under these conditions, shoes with good traction are essential for safety, particularly in the Grand Canyon with its smooth, polished limestone. Your feet will get wet in many of the hikes in this book. The best canyoneering shoes retain much of their traction even when they have become wet. Avoid sandals, since they offer little protection for the feet, as well as leather boots, which are heavy and have a hard time standing up to water. Most canyoneering specific shoes offer full-foot protection and are constructed of synthetic materials that do not expand or contract when wet. They also usually have the ability to drain, allowing water to escape from the shoe.

Most canyoneers consider the stealth rubber used in Five Ten shoes to provide the best traction for canyoneering, though I prefer inexpensive trail running shoes.

**Five Ten:** <http://www.fiveten.com>

## GLOVES

A pair of gloves is a good idea for rappelling, particularly on the longer drops. They reduce friction on the hands and make the speed of the rappel easier to control. There are a wide range of gloves available on the market, from specialized rappelling gloves to inexpensive work or gardening gloves. Either will work. Look for gloves whose palms and fingers are made from durable materials that provide a secure grip even when wet.

## ***HARNESSES***

Climbing harnesses come in a wide range of styles and almost any will function in a canyoneering context. The main features to look for are comfort and adjustability since it will need to fit your body, both with and without a wetsuit. Unlike climbers, canyoneers will often hike long distances while wearing a harness. Make sure that the harness is comfortable to walk in and that the legs straps stay at the tops of your legs.

## ***HELMET***

A climbing helmet should be worn on all canyon trips to protect your head from items falling from above or from a slip and fall when hiking or climbing. Be sure to use a helmet that meets UIAA (Union Internationale des Associations d'Alpinisme) specifications. Other key features to look for are fit, adjustability, comfort and ventilation. Climbing helmets typically come in two styles, plastic shells with an internal webbing suspension and plastic shells with polystyrene foam liners. Both types protect your head by absorbing shock. Internal strapping systems stretch to absorb impact, while polystyrene liners absorb shock by deforming and compacting.

## ***HEADLAMP***

Sometimes short trips become long ones when unexpected difficulties arise. A headlamp is an essential piece of gear in the event the group becomes stuck outdoors after darkness sets in. Most canyoneers prefer LED type headlamps, since they are lightweight, bright and will provide hours of illumination on a single set of batteries.

## ***KNIFE***

A small, sharp, light weight knife should be carried in order to cut webbing and rope. A knife with a serrated blade tends to cut webbing easier than one with a straight edge, but is harder to sharpen. If you carry the knife outside of your pack, make sure it has a locking mechanism that prevents it from opening accidentally.

## ***NEOPRENE SOCKS***

The feet are usually the first part of the body to become chilled when descending a canyon with cold pools. Neoprene socks provide warmth in cold, wet conditions as well as some padding and protection for your feet. Some canyoneers prefer to wear a thin pair of sock liners beneath the neoprene to prevent blisters.

## ***PACKRAFT***

The three companies that I am aware of that currently market packrafts are Alpacka, NRS and FlyWeight Designs. Unfortunately, as of the spring of 2010, Sevylor has discontinued production of their inexpensive, but serviceable Trail Boat, which is the model I used when compiling these trips. Alpacka manufactures a line of packrafts that are constructed of durable urethane-coated nylon. The rafts weigh in between 3.3 – 5.5 pounds (without paddle) and cost \$600 – \$800. The boats can carry quite a bit of weight; however, heavier loads will reduce maneuverability. NRS current sells a single model that is also made of urethane-coated nylon. The raft weighs 4.8 pounds (without paddle) and costs \$550. The Sevylor Trail Boat (if you can find one) is made of nylon polyurethane and polyvinyl chloride (PVC). It weighs 3.5 pounds with paddles and costs about \$70. The boat has a maximum capacity rating of 220 pounds (though I've seen them stay afloat when

loaded somewhat heavier). FlyWeight Designs is a new player in the market and offers a promising, lightweight, nylon raft that weighs just over 2 pounds, has a 310 pound weight capacity and costs under \$300.

The main difference between the packrafts is cost, durability and weight. The Alpaca and NRS models are more expensive, more durable and heavier, while the Sevylor is less expensive, less durable and lighter. The Alpaca and NRS are more spacious, offering room for larger individuals and big packs. They feel sturdy when inflated and are constructed much like a miniature version of a whitewater raft. The Sevylor Trail Boat, on the other hand, has the appearance of a well made pool-toy. Since the bulk of my experience is with the Trail Boat, I am not able to comment on the relative performance of each type of raft, but I can say that the Sevylor rides fairly low to the water, a feature that makes it prone to swamping in choppy seas. All boats come with valves that allow for oral inflation, adding mild hypoxia to your list of canyon thrills. The Sevylor comes with a combination dry bag / carry bag / inflation bag, but due to weight considerations, I've always left it at home. While each raft has its advantages, which one you end up choosing will depend on personal preference and level of disposable income.

Though some will claim that the Sevylor Trail Boat is wholly unsuited for wilderness travel, I have used the same boat for all hikes described in this book and have found it to be a perfectly usable option for those on a budget who are willing to treat it with care.

Alpaca: <http://www.alpackaraft.com>

NRS: <http://www.nrsweb.com>

Sevylor: <http://www.sevylor.com>

FlyWeight Designs: <http://www.flyweightdesigns.com>

## **PADDLES**

The Sevylor Trail Boat comes with 2 small plastic paddles with screw-on blades. A separate connector converts them into kayak-style paddles, though I have found them to be far too short to be useful in this configuration and prefer to use them individually, with one paddle in each hand. The paddles are good for steering, ok for paddling for short periods and dreadfully inefficient for traveling long distances over flat water. Fortunately, the Colorado is a river with a steady current that is usually sufficient to allow one to travel by simply floating. These paddles are not terribly durable and can crack and break if used with excessive force.

Some packrafters prefer to use a kayak paddle that has the ability to be broken down into short sections. These paddles are typically 210 – 250 cm in length and are made of fiberglass, aluminum or carbon fiber. Prices range from \$140 – \$220 and they can weigh as little as 1.5 pounds to 2.25 pounds or more. A good paddle will greatly increase the speed and maneuverability of a packraft and will enable it to be paddled longer distances before fatigue sets in. The main disadvantages of these full-sized paddles are their weight and bulk.

I've used the plastic Sevylor paddles on all trips and have found them to be adequate. They provide steering and maneuverability over short distances and are the lightest paddles I've found. With that said, many a time I've found myself wishing for full-sized paddles, usually while struggling against a stiff head-wind in choppy waters while sitting in a cold puddle of river water. I've yet to make the switch though, principally due to the primary



importance of weight when backpacking in the Grand Canyon. Others may find the added performance offered by a kayak paddle worth the trade-off.

## ***PERSONAL FLOATATION DEVICE (PFD)***

Park Service regulations require the use of a serviceable U.S. Coast Guard approved Type I, III or V Personal Flotation Device (PFD) or Life Vest while boating on the Colorado River. More important than the rules however, a PFD greatly increases your chances of survival in the event of an unexpected dunk in the river. While a life preserver is no substitute for good judgment, it can quite literally preserve your life.

A Type I PFD is designed for rough water, where rescue may be slow in coming. It usually will turn an unconscious person face up and has over 22 pounds of buoyancy. These life jackets tend to be both heavy and bulky. Type III life jackets are generally considered the most comfortable. They provide a minimum of 15.5 pounds of buoyancy and are designed for use in calm water where there is good chance of fast rescue since they will generally not turn an unconscious person face-up. Type V PFDs are hybrid vests having some internal buoyancy as well as being inflatable to provide additional flotation.

Like every other piece of gear carried into the Canyon, weight and bulk should be kept to a minimum. One tradeoff you'll encounter is that lighter PFDs often have less flotation than heavier, bulkier models. The lightest life vests are either made of closed cell foam or are inflatable. Inflatable PFDs are typically lighter and less bulky than foam, while foam versions are more versatile, durable and cannot be punctured. Vest-style foam PFDs can also provide some added warmth and insulation to your body's core.

Which life vest you choose will depend on personal preference and comfort level in the water. Choose a vest that fits comfortably and can be adjusted for a snug fit. If the option exists, choose a vest that is brightly colored since it will be more easily spotted in the water. Prior to taking it on the river, test your PFD in a pool or in shallow water to see how it works. A properly sized and fastened life jacket should stay in place and not ride up or slip over your chin. Check the buoyancy to make sure the PFD keeps your chin above water and allows you to breathe easily. If your mouth is not well above the water, select a different PFD with more flotation.

I carry an inexpensive, foam PFD, which is kept strapped to the outside of my pack when not in use due to its bulk. Around camp it serves double duty as both a seat cushion and pillow.

## ***POTHOLE ESCAPE GEAR***

Potholes are formed when water pouring over a drop creates a bowl shaped depression in the rock below. A pothole becomes a 'keeper' when it is large enough that it is difficult to avoid and the exit lip cannot be reached once the canyoneer has descended into the pool. These obstacles can trap a person and are considered one of the more difficult challenges a canyoneer must overcome. There are several techniques that are commonly used to escape a keeper pothole. One of the most common, and one that does not damage the canyon, is to use a small throw bag filled with rocks or sand. A rope or cord is connected to the bag and it is tossed across the pothole for use as a counterweight enabling escape by climbing the rope. Sometimes multiple throw bags are needed to escape a particularly difficult hole.

Another type of pothole escape gear consists of a climbing hook attached to the end of a collapsible aluminum pole. With an etrier attached to the hook you can use the pole to

catch a solid feature in the rock, a bolt or a sling on the far side of the pothole then climb up the etrier. These devices are of limited usefulness since good hook spots are rarely found where they are needed, however we did successfully use this technique to escape the very large keeper pothole in Salt Canyon (see trip description).

### ***PULL-CORD***

Canyoneers will often use a pull-cord to retrieve their rope when rappelling single stranded using a carabiner block. The main advantage of using a pull-cord is that it weighs considerably less than a comparable length of rope. Accessory cord between 5mm–7mm in diameter works well for this purpose.

### ***RAPPEL DEVICE***

A rappel device is used to apply friction to a rope, allowing for a controlled descent. There are many types of rappel devices on the market to choose from, each with their own advantages and disadvantages. Most canyoneers choose a device of either a figure 8 or tube type design. Both types are light weight and durable and can be used with a wide variety of rope types and thicknesses. Whichever device type is chosen, every canyoneer should know how to rig their device to rappel on both single and double strands of rope, how to add or remove friction and how to lock it off.

### ***RAPPEL RING***

When rope is pulled through webbing it can quickly damage the webbing as well as generate additional friction, which creates a harder pull. For this reason rope is threaded through a rappel ring placed on the webbing. Rappel rings are typically rolled aluminum; however, solid aluminum and stainless steel rings are also available. Rapid links may be used for the same purpose, but have the added advantage that they may be placed on the webbing after it has been tied into a loop.

### ***ROPE***

Since rappelling is the main purpose for which rope is used in canyoneering, static or low stretch rope is the best type. Static rope has a low degree of elongation resulting in less bouncing on rappel, providing for a smoother descent and less abrasion against the rock. Static rope is not designed to absorb shock, so falls that could result in sudden loading of the rope should be avoided. Most canyoneers use static rope with diameters between 8–10mm. Thinner rope is lighter and absorbs less water, but is not as strong and is less resilient to damage, so extra care must be taken to avoid abrasion. It is also more difficult to generate friction on a thin rope, which can result in higher rates of descent. For these reasons, 8mm rope is typically used only by more experienced canyoneers. A thick rope is more durable, but can be very heavy, especially when wet. A mid-sized 9mm rope provides a good balance between safety, weight and durability for many canyoneers.

Because of the weight considerations involved with hiking in the Grand Canyon, I used 8mm rope (Blue Water Canyon Pro or Imlay Canyon Rope) exclusively for hikes in this book. Blue Water Canyon Pro rope is extremely popular, durable and lightweight, but is rather expensive. You'll also want to be sure to have the ability to add friction since the rope can be rather slick when new. Imlay Canyon Rope is also very durable, is relatively inexpensive, but heavier. It seems to have a rougher sheath, which I've found provides a good amount of friction.

Blue Water: <http://www.bluewaterropes.com>

Imlay Canyon Gear: <http://canyoneeringusa.com>

## **ROPE BAG**

Nothing will grind a canyoneering trip to a screeching halt like a snarled mass of tangled rope. In order to effectively manage rope and avoid unwanted knots, the rope should be coiled neatly between each rappel or placed in a rope bag. Rope bags are particularly useful for managing ropes longer than 100 feet in length. Rope is simply fed into the bag, and when needed, it can be deployed by throwing the rope bag over the edge of the drop. This is particularly advantageous for short rappels, where only the amount of rope needed is deployed from the bag. Using a coil, the entire rope often must be deployed and re-coiled, regardless of the size of the drop.

## **SAFETY TETHER**

In many situations, the canyoneer will be required to move to the edge of a drop, such as when rigging a rope or preparing for a rappel. It is a good idea, where possible, to have the canyoneer clip a safety tether into the anchor as protection in the event of a fall. A safety tether may also be used as a component of an ascending system and for some rescue systems. There are several types of commercial safety tethers available on the market. Those on a budget can use a tied webbing sling for this same purpose.

## **TRACTION DEVICE**

During the winter months the upper parts of many trails become covered with ice and snow, making hiking difficult or dangerous. Snowshoes and crampons are typical solutions to these types of conditions, but are largely overkill for hiking in Grand Canyon since the ice abates as you descend. A better (and lighter) solution is the use of a more basic traction device that attaches to a normal hiking boot or shoe such as in-step crampons, cleats, or shoe chains. I've used YakTrax, which use steel coils on a rubber frame on several trips. They provide decent traction and are lightweight and quick and easy to put on and take off. YakTrax: <http://www.yaktrax.com>

## **WEBBING**

Webbing is used for a variety of purposes in a canyon, not least of which is for use as a sling for an anchor. Webbing comes in a variety of widths and strengths, however most canyoneers appear to favor the 1-inch or 1 1/16-inch tubular type. There are competing philosophies as to what color of webbing is best suited to canyoneering. Some believe that neutral or dull colored webbing better blends into a natural environment, while others believe that the use of brightly colored webbing better identifies the anchor for subsequent parties.

## **WETSUIT/DRYSUIT**

Hypothermia can be a danger at all times of the year in Arizona's canyons. This is best guarded against through the use of a wet or drysuit. Wetsuits trap water against the skin allowing it to warm to body temperature. The type and thickness of wetsuit needed will depend on the canyon, the time of year, and the individual's body type. Most canyoneers eventually own several types of wetsuits and choose the one that best matches the canyon and time of year. A shorty wetsuit (short sleeves and legs) is best for shorter canyons and hotter weather. A full wetsuit is used for longer trips in cold water or for canyoning during



spring or fall. A drysuit is typically constructed of waterproof (sometimes waterproof-breathable) fabric with a waterproof zipper and latex gaskets at the wrists and ankles. With a drysuit, the body warms the air trapped within the suit. When wearing a drysuit, it is typical to layer thermal underwear or fleece underneath to accommodate the temperature and duration of water exposure expected to be encountered. Drysuits are more fragile than wetsuits and a small leak can negate the excellent protection they afford. If you choose to wear a drysuit, buy one that is durable and carry a repair kit.

### **LIGHTWEIGHT BACKPACKING**

Because of the attendant gear requirements associated with the combined activities of backpacking, technical canyoneering and packrafting, it is essential to start with a base pack weight that is as light as possible. A heavy pack will slow progress, make climbing more difficult, increase repetitive stress on the joints and increase the risk of injury. It will also substantially detract from the enjoyment of the experience. The hikes in this book will be made incredibly difficult for those unable, or unwilling, to lighten their load. Pack weight is one of the most important factors in ensuring a safe, successful and enjoyable Grand Canyon hike.

*"The pleasure of travel increases in direct proportion to the decrease of baggage."*

— Richard Halliburton, *The Royal Road to Romance*

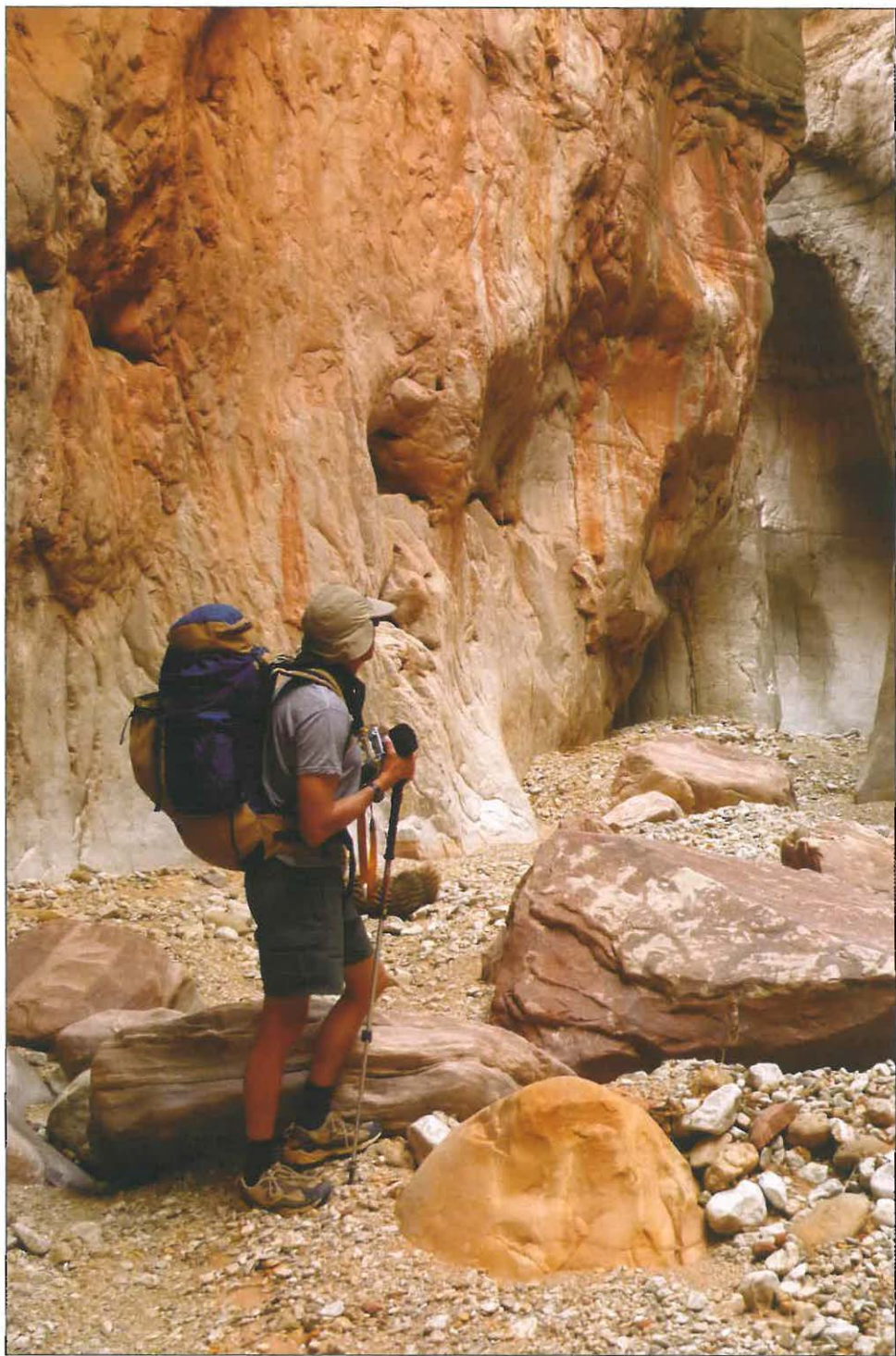
Fortunately, there are some very simple things that can be done to decrease pack weight and do not compromise safety or require expensive purchases of specialized lightweight gear. The first, and easiest, is to simply leave all non-critical gear at home. Elimination of unnecessary equipment provides an immediate weight savings and requires no expense. There are also some gear substitutions that can provide a substantial weight savings. Rather than cutting the edges off of maps or sawing the handle off your toothbrush, look to reduce the weight of the heaviest pieces of equipment first.

If you are unsure where to begin, there are a number of good lightweight backpacking resources available on the web and several books on the subject. Keep the nature of backcountry Grand Canyon travel in the back of your mind as you review this information.

<u>Heavy Gear</u>	<u>Substitute</u>	<u>Lighter Alternative</u>
Tent	→	Tarp or Bivy Sack
White Gas or Butane Stove	→	Alcohol or Solid Fuel Stove
Leather Hiking Boots	→	Cloth Hiking Shoes or Trail Runners
Full Length Luxury Sleeping Pad	→	$\frac{3}{4}$ Length Lightweight Pad

Due to the rugged nature of the environment, the equipment needs of a backcountry Grand Canyon hiker will not necessarily be the same as those of a leaf-peeper on a stroll through the woods of Vermont. A sample gear list has been assembled in the following tables as an example for those looking to lighten their load. Weight can be reduced further by splitting community gear up amongst the group with no reduction in safety or comfort.

The list above provides a base, dry pack weight of 15 pounds and a skin-out weight of about 20 pounds. Add to this list 3 quarts of water (6.3 lbs) and food for 4 days, 3 nights (8 lbs) and your pack weight will be approaching 25 pounds. Ultra-light hikers



*Packed for a multi-day canyoneering trip (Photo by Rich Rudlow)*





who obsess over every ounce will almost certainly be able to reduce their base weight even further. A base pack weight of 10 pounds is common in lightweight circles and ultra-light backpackers have reduced their loads even more. Although there is a corresponding tradeoff between weight and durability, many lightweight concepts and techniques can be modified or adopted to desert conditions.

In addition to basic backpacking equipment, the hikes in this book may require an assortment of technical gear for canyoneering descents or packrafting paraphernalia for river crossings. Though much of this gear is designed to be “lightweight”, this term is relative at best. Whenever technical gear is required for a trip the ounces and pounds quickly accumulate.

As you can see, the weight of the technical gear eclipses that required for a simple backpacking trip and that in the example provided it adds up to a crushing 32.4 pounds of additional load. You may assume that your pack will gain even more mass in a wet canyon as the gear becomes waterlogged.

## Technical Gear

Helmet.....	8 oz	4x3 Wetsuit.....	48 oz
Harness.....	16 oz	Packraft plus paddles.....	56 oz
Rappel device.....	3 oz	Life vest.....	8 oz
6 Carabiners.....	18 oz	250' 8mm rope.....	120 oz
Personal anchor system.....	3 oz	100' 8mm rope.....	48 oz
Two runners.....	4 oz	100' Pull-cord.....	32 oz
2 Tiblocs.....	4 oz	50' 8mm rope.....	24 oz
Prusik loops.....	3 oz	7 Rapides or rap rings.....	12 oz
3 Dry bags.....	12 oz	75' Webbing.....	33 oz
Rappel gloves.....	4 oz	2 Pitons.....	6 oz
Neoprene socks.....	3 oz	Bolt kit w/three 3/8" x 2-1/4" bolts.....	54 oz
<b>Total</b>		<b>519 oz</b>	

Again, some of the technical gear (ropes, webbing, etc.) may be shared amongst the group and distributed between members for packing. Even so, it should be clear to traditional (heavyweight) backpackers that the addition of technical equipment to an already heavy pack would present a daunting challenge to all but the strongest and most masochistic hikers.

Lightweight backpacking websites and forums:

<http://groups.yahoo.com/group/BackpackingLight>

<http://www.backpacking.net>

<http://www.backpackinglight.com>

## Etiquette

There are three qualities that are essential to a wilderness experience: solitude, silence, and lack of evidence of human encroachment. In addition, the outdoor traveler should also seek to preserve the natural balance of the ecosystem through which they are hiking. If these are qualities valued by the canyoncer, then etiquette dictates that behaviors compatible with these values be adopted. This will not only reduce the impact of your own presence on the wilderness, but will help to assure that those who follow obtain the same enjoyment and sense of exploration from the area as you did.

My gut feeling is that the vast majority of people spend their days completely removed from the natural world. They have lived in an artificial environment for their entire lives to the point that when they arrive in the wilderness they have no idea how to behave or how it should be treated. If they have had the experience of going to an amusement park they know that in that setting, they are the customer and that the park is there to serve their needs and provide amusement. It can be seen how these attitudes are easily transferable to an area like the Grand Canyon, where an entrance fee is paid and amenities and services that cater to the customer are provided (and with the mules, trains and scenic over-flights there are even 'rides'!!). Unfortunately, actions taken by the land management agencies often promote this 'entertain me' attitude and by building roads right up to prominent natural landmarks they have turned many natural wonders into just another pretty postcard view (ironically you will often find signs at these locations bemoaning human vandalism, which their roads helped create in the first place).

Here are a few unwritten rules that should be followed by all hikers in order to minimize impact on the natural environment and to maximize the enjoyment of fellow hikers. They are all common sense and they take little to no effort to follow.

### *TRAIL ETIQUETTE*

Trail etiquette follows many of the same rules as those required for driving an automobile such as: stay on the trail, hike on the right, yield to faster hikers, pass on the left, and watch out for the jackasses err .... mules.

- Respect other users. Be friendly and courteous.
- Share the trail. Hike on the right on wider paths, pass on the left.
- Mules always have the right of way. Step off the trail on the uphill side away from the edge and follow the direction of the wrangler. Remain completely quiet and stand perfectly still. Do not return to the trail until the last mule is 50 feet past your position.
- Slower hikers should yield the right of way to those traveling at a faster pace. Hikers should therefore yield to trail runners so that the runner doesn't have to break his or her stride. Unless passing or being passed, try to maintain separation between yourself and other groups.
- Hikers going uphill have the right of way over those coming downhill. Sometimes uphill hikers will prefer to stop and let those coming down pass so they can take a short break. The uphill hiker makes the decision.
- Large groups should hike single file and/or occupy no more than half of the width of a trail. The entire group should step off the trail when being passed by faster hikers.
- Anticipate other trail users around corners and blind spots.
- Never roll or throw rocks, you never know who or what is below.

## **SOLITUDE**

Getting off the beaten path and away from the crowds is certainly one of the reasons to go canyoneering. Sometimes, however, there is more than one person that has this same idea, particularly in some of the more popular locations. There are some things you can do to minimize the disturbances caused by your presence and allow others to enjoy their experience as well:

- Take breaks away from popular areas and other canyoneers. If the canyon features a scenic viewpoint, or waterfall, and there are other groups about, spend a few moments enjoying the view. If you are planning a break or lunch, move off to the side to let other canyoneers have their turn. Please don't throw your pack down on the most prominent and visible area, kick off your shoes and spread out your lunch as if you owned the place.
- Keep your group small, a party of 3–6 canyoneers is optimal.
- If the canyon is popular, schedule your trip at a time likely to avoid other groups.
- Keep in mind that other canyoneers are probably looking for the same natural experience that you are; treat them the way you would like to be treated.

## **SILENCE**

Nothing quite shatters the illusion of solitude like noise from a man-made source. The sound of traffic, voices, low flying aircraft etc. act as an immediate reminder that civilization is not as far behind as you might like to think. In the desert, there are fewer obstacles to muffle loud noises. As a result sounds tend to carry quite far alerting animals and humans to your presence. By preserving the natural silence you are far more likely to see and hear wildlife at close range and enjoy a wilderness experience. Make an effort to keep loud noises to a minimum.

## **MINIMUM IMPACT**

As human populations continue to rise (expected to exceed seven billion in 2011) and natural areas fall prey to development, those that are left experience increasing amounts of human visitation. As a result, extra care is required to ensure that the area is left in no worse condition from our visit than when we arrived. This is especially true in a fragile desert environment and in canyons where the effect of human activity may persist for generations to come.

- You've probably heard it a million times already – take only pictures, leave only footprints.
- Pack out all trash including toilet paper. This includes such supposedly biodegradable material as orange peels and apple cores. Those who carry out trash left by other people are the best!
- Narrow canyons do not make good toilets, particularly where solid waste is concerned. Do your business ahead of time, hold it until you exit the narrows, or bring a burrito bag and pack everything out. Outside of the canyon, use the standard practice of burying it 6–8 inches deep at least 200 feet from trails or water.
- Leave what you find. Do not build structures, furniture, or dig trenches. Leave rocks, plants and other natural objects as you find them.
- Travel and camp on durable surfaces. Avoid taking shortcuts; shortcuts cause erosion and endanger other hikers. Please do not alter sites; good campsites are found, not made. Protect riparian areas by camping at least 200 feet away from streams. Avoid



trampling the fragile Cryptobiotic (living) soils by staying on trail or walking in washes or on rocks. Beware of camping in dry streambeds when precipitation and flash flooding is possible.

- Do not build campfires. In addition to leaving a dirty scar on the landscape, campfires are strictly prohibited in the Grand Canyon backcountry.

### ***ECOSYSTEM HEALTH***

In addition to being a great place to explore, exercise, recreate and sightsee it should also be remembered that thousands of creatures depend on the wilderness for their survival. By thoughtless or careless degradation of a natural area, you may be compromising the ability of those creatures to survive in the harsh desert climate. You are an uninvited guest in their desert homes, be considerate of the needs of wildlife.

- Camp at least 200 feet from lakes and streams. Animals need water to survive and may be hesitant to approach if you camp too close.
- Encountering wildlife in their natural environment is exciting and rewarding. Observe and take photos of wildlife from a distance. Stay 25 feet away from large mammals, condors, rattlesnakes, and other sensitive species. Do not follow, approach, handle, or feed animals. Store your food and trash securely so animals do not get to it; use containers that rodents and animals cannot chew through. Feeding wildlife damages their health and alters natural behaviors.

### ***MINIMIZE THE EFFECTS OF CANYONEERING***

It should be the goal of every outdoors person to leave no trace when traveling in the backcountry. Unfortunately, in canyoneering where webbing is often required, this is not always possible. Therefore canyoneers should seek to minimize impact wherever they can. Consider using retrievable or releasable anchors where possible. Leave only the webbing required to perform a rappel, removing and carrying out old slings. Fixed anchors such as bolts or pitons are more difficult to justify, since they become semi-permanent fixtures in a canyon once they are placed. Several of the canyons described in this book already contain bolts, and in fact, in some cases the canyons would be extremely difficult, if not impossible, to descend without them. With that said, these canyons have been descended many times without the need for additional bolt placement. Those with the required skill should not need to place any additional bolts to safely descend these canyons. It is my hope that those that follow strive to leave the canyons in the condition they were found and would only place a bolt as a very last resort and then, only when the safety of an individual or the group is at stake.

### ***PALEONTOLOGICAL AND ARCHEOLOGICAL SITES***

Many of the rock layers in the Grand Canyon were deposited at the bottom of ancient seas that teemed with a variety of animal and plant life. After death, some of these organisms were buried in the sediment. Under the right conditions some these remains were converted into fossils as the minerals in the plant and animal bodies were slowly replaced by minerals from the sediment and water.

Because many sea animals have hard shells that readily fossilize, their remains can be found embedded within every strata of the Grand Canyon with the exception of the Vishnu Schist. Differential erosion has exposed a multitude of fossilized remains throughout

the Park and they may even be seen along the most popular hiking trails. Looking for and identifying fossils within the geologic layers of the Canyon can provide insight into hundreds of millions of years of the earth's history and can add an additional element of richness to a hike. Collecting is not allowed in Grand Canyon National Park though, so leave them where you find them.

In addition to paleontological remains, the Grand Canyon contains numerous archaeological sites left by prehistoric people who inhabited the region. Evidence of their life and culture exists in the form of ruins, petroglyphs, pictographs and artifacts. Archaeologists have identified over 4,300 sites in the Grand Canyon and estimate that the park may have as many as 50,000 – 60,000 sites. These areas can provide a visceral connection with the past as well as valuable historical knowledge. Much of the information content of an archaeological site is gleaned not just from the structures or objects themselves, but from their spatial and temporal relationships among soil layers, other artifacts and geological features. When objects are moved (or removed) these relationships are destroyed and key information is lost.

Archeological sites are also fragile and irreplaceable. If you find a site, please leave the area as you found it for future generations to enjoy. Do not climb on the walls or roofs of structures or cause any other disturbance. Feel free to take photographs, but do not touch petroglyphs or pictographs (oils on the hand can hasten their demise). Finally, if none of these arguments prove convincing, be aware that the Antiquities Act allows for prosecution of any person who appropriates, excavates, injures, or destroys any historic or prehistoric ruin or monument, or any object of antiquity. Violators are subject to arrest, fines and/or imprisonment.

Several archaeological sites were encountered during the trips taken while researching this book. I have chosen not to disclose their locations to preserve the thrill of discovery for others and to help preserve the sites into the future.

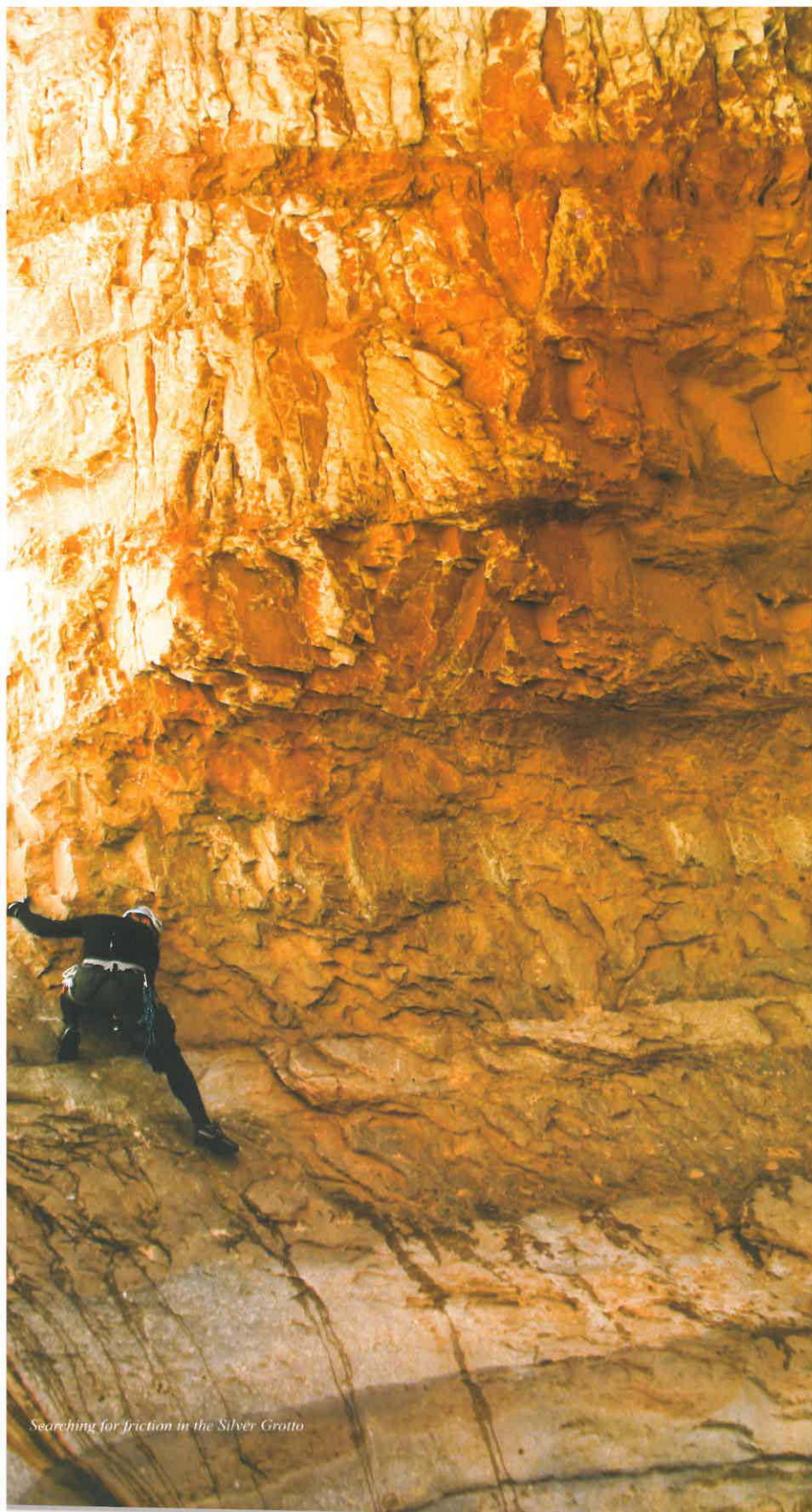


*Crinoid*



*Pictograph*





*Searching for friction in the Silver Grotto*

# EASTERN GRAND CANYON

6

## Chapter 6: Eastern Grand Canyon

For the purposes of this book, the Eastern Grand Canyon encompasses the portion of the Colorado River from Glen Canyon Dam to the confluence of the Little Colorado River (though Grand Canyon National Park officially begins at Lee's Ferry, where the river enters Marble Canyon). Oddly, the Colorado runs in a southwesterly direction through the eastern Grand Canyon, while the Marble Platform rim tilts in the exact opposite direction. This defining feature has led some geologists to propose that the river once flowed in the opposite direction it does today.

While the river flows to the southwest, all of the tributary canyons follow the tilt of the surface. As they near the river, they are captured by drainages that formed along the walls of the canyon near the river. At the point of capture, these canyons make a sudden right-angle bend before entering the Colorado, creating a fishhook pattern when seen from the air.

Marble Canyon has also been the site of considerable human activity. Lee's Ferry is a historic river crossing point that was established by John D. Lee in 1872. The ferry was operated until 1928 when the first Navajo Bridge (now a footbridge) was constructed. It is also the most common launching point for river runners starting their journey through the Grand Canyon. The area between the dam and Lee's Ferry now falls within the Glen Canyon National Recreation Area (GCNRA) and is overseen by the National Park Service.

Marble Canyon is also the site of one of the last large proposed dam projects on the Colorado. Two dam sites were proposed at river-miles 32.8 (upper) and 39.5 (lower). In the early 1950s, the Bureau of Reclamation constructed a mule trail from the rim down Shinumo Wash (also known as 29-Mile Wash) to the top of the Redwall above Redwall Cavern. The Bureau also built two cableways to ferry men and equipment into the canyon. The upper cable stretched 3400 feet from the rim to a camp on top of the Redwall. A smaller cableway was constructed from this camp to a point upstream of Redwall Cavern on river right 350 feet below. A number of exploratory holes, 2 inches in diameter and 100 to 500 feet in length, were drilled into the canyon walls for core analysis.

If a dam had been constructed at mile 39.5, the resulting lake would have flooded Vasey's Paradise and Redwall Cavern. Fortunately, the proposal met substantial opposition, particularly from the Sierra Club, and the project was abandoned for good in 1968. Remnants of the prep work including the mule trail, cableway foundations, and exploratory holes may still be seen today.

Land in the region is administered by a variety of Federal and tribal agencies. The Colorado River below Lee's Ferry lies within Grand Canyon National Park (GCNP) and is under the jurisdiction of the National Park Service. Above the rim, the area north of Navajo Bridge on the western side of the river falls within the Vermilion Cliffs National Monument and is overseen by the Bureau of Land Management (BLM), which also administers the wilderness land south of Highway 89A on the western side of the river between Navajo Bridge and South Canyon. The western rim between South Canyon and Saddle Mountain falls within the Kaibab National Forest, which is administered by the U.S. Forest Service, while the remainder of the land south of Saddle Mountain lies within GCNP. All land on the eastern side of the river up to, and including, the Little Colorado River lies on the Navajo Indian Reservation and is administered by the Navajo Parks and Recreation Department.



## **ROAD ACCESS**

Canyons described in this section are accessed by way of Highway 89, which runs north/south from Flagstaff to Page, and Highway 89A, which runs east/west roughly parallel to the northern rim of the Grand Canyon. Several of the canyons described in this section can be entered from the side of these roadways. Forest roads on the western side of the river are overseen by the BLM and are, for the most part, well marked and maintained; however, due to the remoteness of the region drivers should take basic precautions if venturing far from highways and civilization. Roads on the Navajo Nation are a patchwork of crisscrossing unsigned roads and tracks. Due to the difficulty associated with navigating these roads, detailed topographic maps and a GPS with pre-programmed routes or waypoints are recommended.

## **SUPPLIES AND SERVICES**

Those in need of supplies should travel to Page, AZ, which offers all of the amenities you would expect from a medium-sized town including gas, groceries, restaurants, and hotels. Highway 89A has a few small combination convenience store/gas stations where basic necessities may be purchased as well as a few restaurants and lodges that cater mainly to the sightseeing and boating crowd. Of special note, for those who like to stay clean, is the Lee's Ferry Lodge, which has a laundromat and pay showers (\$2.50 for 5 minutes). The Lodge is located at the edge of the Vermilion Cliffs National Wilderness Area, on Hwy 89A, 3.5 miles west of the Navajo Bridge, which spans the Colorado River.

## **CAMPING**

At-large camping is available on BLM lands east of Highway 89A off of any of the many unpaved forest roads in the area. The Soap Canyon Trailhead is a particularly convenient place to camp. There are also a few spots to camp along the well graded, unpaved House Rock Valley Road, which runs north/south between Highway 89A and Highway 89 in Utah. No services are provided on BLM lands, but there are no fee or permit requirements either. Primitive camping is available at the Lee's Ferry Campground for \$10/night, which offers water and flush toilets. The campground is operated by the Park Service and does not take reservations. There are 50 campsites, available on a first come basis. Lee's Ferry is located 5 miles north of Highway 89A just west of Navajo Bridge. At-large camping is also allowed in the backcountry on Navajo land with a permit (\$5 per person per night).

## **PERMITS**

In Marble Canyon, the Colorado River flows in a southwesterly direction and forms the boundary between lands under the jurisdiction of the Bureau of Land Management (BLM) to the west and the Navajo Nation to the east. Grand Canyon National Park (GCNP) is sandwiched between these two areas and constitutes the region between the Canyon's rims. A permit is required for both hiking and camping on Navajo land, as well as for camping within the boundaries of Grand Canyon National Park. See the section covering permits and Navajo Nation for additional information. No permit is required for recreation on lands administered by the BLM.

## *MANAGING AGENCIES:*

Glen Canyon National Recreation Area

PO Box 1507, Page, Arizona 86040

Telephone: (928) 608-6200

<http://www.nps.gov/glca>

Bureau of Land Management - Arizona Strip Field Office

345 East Riverside Drive, St. George, UT 84790-6714

Telephone: (435) 688-3200

[http://www.blm.gov/az/st/en/fo/arizona\\_strip\\_field.html](http://www.blm.gov/az/st/en/fo/arizona_strip_field.html)

USDA Forest Service - North Kaibab Ranger District

430 South Main Street, PO Box 248, Fredonia, Arizona 86022

Telephone: (928) 643-7395

<http://www.fs.fed.us/r3/kai>

Grand Canyon National Park

P.O. Box 129, Grand Canyon, AZ 86023

Telephone: (928) 638-7888

<http://www.nps.gov/grca>

Navajo Parks and Recreation Department - Cameron Visitor Center

P.O. Box 459, Cameron, AZ 86020

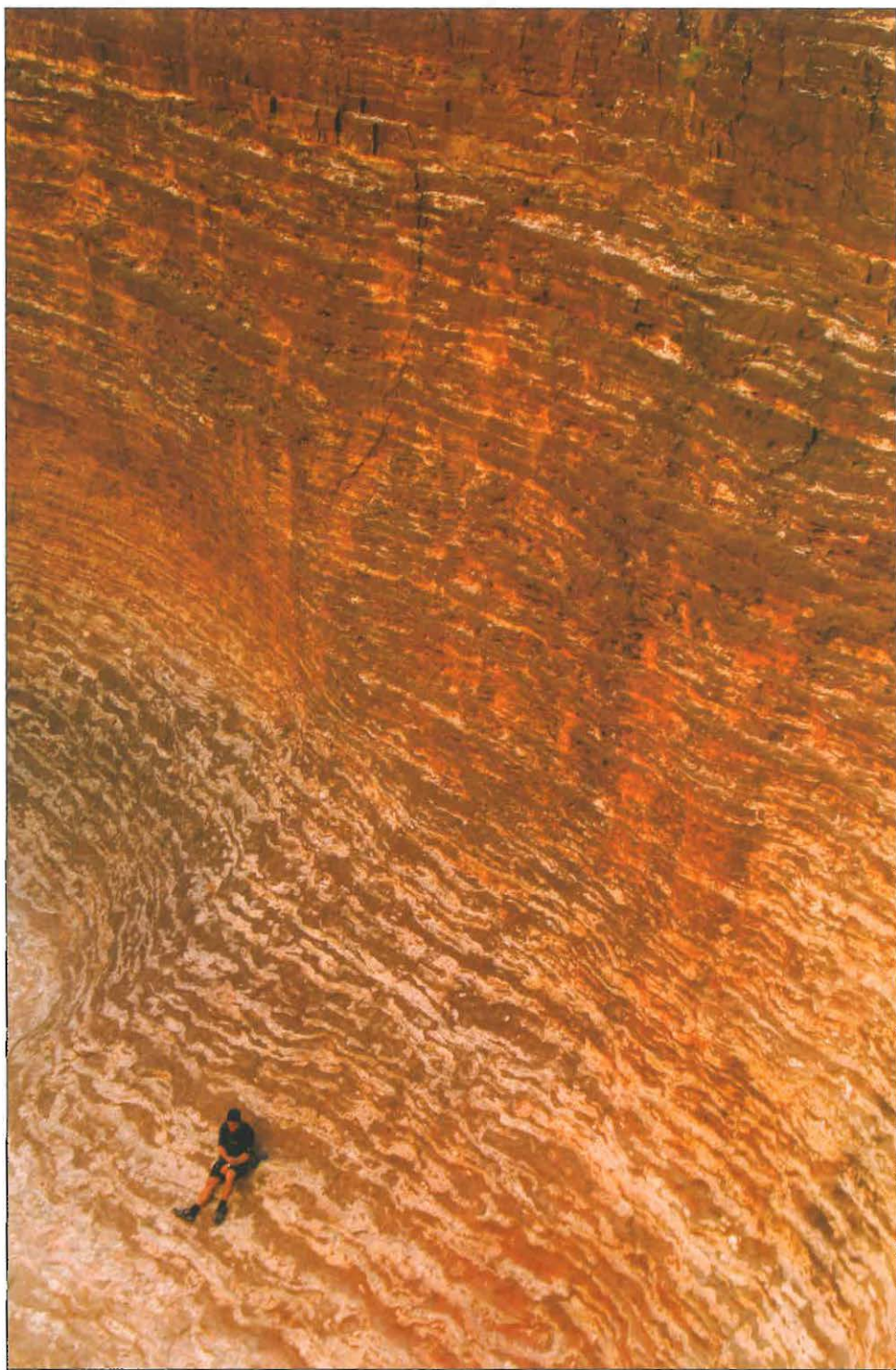
Telephone: (928) 679.2303, Fax: (928) 679.2017

E-mail: [lcr@navajonationparks.org](mailto:lcr@navajonationparks.org)

<http://www.navajonationparks.org>

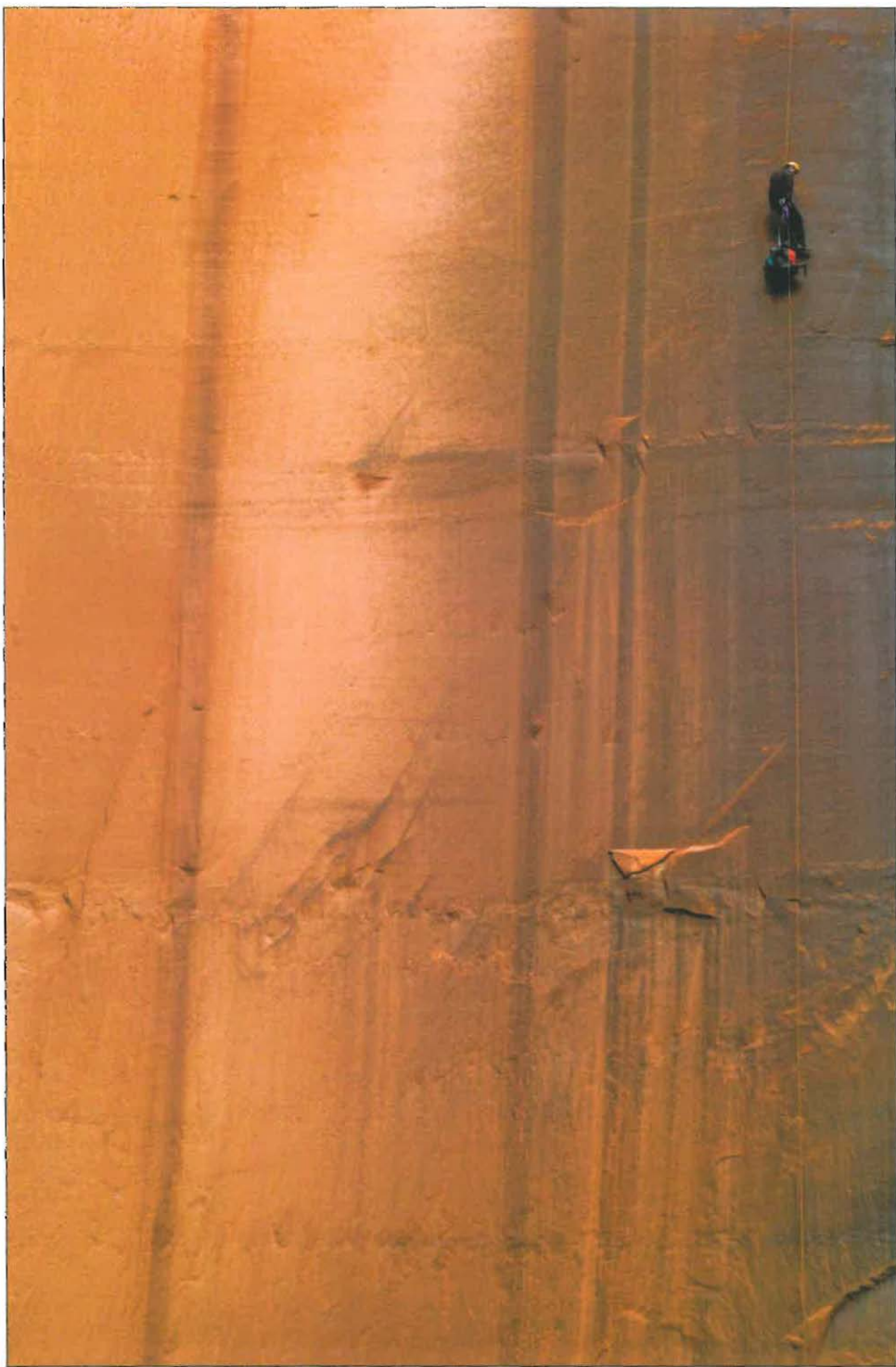


*Navajo Bridge*



*Buck Farm Canyon*





*Tom Jones on the big rappel in Water Holes Canyon*

## 1: Water Holes Canyon

**OVERVIEW:** Though technically not part of the Grand Canyon, Water Holes Canyon is part of the same Colorado River canyon system and is included here for completeness (and because it's fun!). The trip can be done as a loop hike by exiting the canyon above the big drop, or as a through trip using packrafts to float the Colorado to Lee's Ferry.

**LOCATION:** Navajo Nation/Glen Canyon National Recreation Area/Grand Canyon National Park. South Rim.

**REQUIRED GEAR:** **Loop Hike:** 2x150' ropes, 30' webbing, 4 rap rings; **Through Trip:** 3x200' ropes (or 2x320' ropes), 80' webbing, 7 rap rings, drybag, packraft, paddle and personal floatation device; **plus:** harness, descender, helmet, and carabiners.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. This canyon contains a rappel in excess of 300 feet that features a rope eating crack. Bring an extra 200-foot backup rope just in case. River travel is required in order to complete this trip as a through hike. This hike requires a permit from the Navajo Parks and Recreation Department.



<b>ACA Rating:</b> 3B III	<b>Distance:</b> 3.0 – 6.4 miles
<b>Physical Difficulty:</b> Moderately Strenuous	<b>Elevation:</b> 4,540 – 3,080 ft.
<b>Time Needed:</b> 6 – 14 hours	<b>Best Time of Year:</b> Any
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> Yes – if exiting at Lee's Ferry
<b>Maps:</b> USGS Lee's Ferry 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

**WATER HOLES CANYON:** Water Holes Canyon is found on Highway 89 at milepost 542 just south of Page. Park on the northeast side of the bridge, which spans the canyon.

**OPTIONAL CAR SPOT (Lee's Ferry):** From Flagstaff, drive north on Highway 89. Turn left on Highway 89A, drive to the west side of the Navajo Bridge. Turn north after crossing the bridge towards Lee's Ferry. Follow the signs and park at the boat launch parking area.

### TRIP DESCRIPTION

From the car park, walk east through the gate to the edge of the canyon to identify the trail that leads down to the canyon bottom. Proceed downcanyon, passing beneath the Highway 89 bridge, to immediately enter a nice section of narrows. There are a few minor downclimbs, including one at a wrecked car, but no significant obstacles until you reach a 15-foot drop which may be descended via hand-line (possibly fixed) or rappel from a large hardware store bolt placed in the floor of the canyon above the drop.

The canyon alternates between tight, twisting narrows and wide open canyon until you reach rappel #2, which is 50 feet in length from 2 bolts and hangers on canyon left. Rappel #3 is just beyond and is 25 feet from 2 bolts and hangers on the right. Rappel #4 is 50 feet in length down a sloping wall from 2 bolts and hangers on the right. Below this rappel, one somewhat awkward downclimb is found before the canyon widens.

Those who wish to exit the canyon can do so to the right via a well cairned route that leads to the rim via a series of ledges that form a break in the cliffs. There is some minor exposure

along the route, but no difficult obstacles are present. Once on the rim simply hike cross-country to the east to Highway 89 and your vehicle.

Below the escape route, the canyon narrows again at a deep pothole (look for a route around the pothole on the right). A few minor downclimbs are required before passing through a short, but very narrow section. It helps to stay high through this stretch where the canyon is somewhat wider. Rappel #5 is 20 feet in length from 2 bolts on the right, though climbers may be able to descend without the use of a rope. Rappel #6 is also about 20 feet from 2 bolts on the left (one of which is rather old and features a homemade hanger stamped "Bandito"); it may also be downclimbed.

After passing through the one pool in the canyon (usually waist deep), you'll bypass a dry keeper pothole on a small ledge to the right to rappel 10 feet to the downcanyon lip of the hole. This is followed by a 60-foot rappel from bolts on the right to arrive at the staging area for the big rappel sequence.

The sequence begins with an awkward 100-foot rappel (#9 if you're counting) from bolts on the right down a narrow crack to the top of the big (320-foot) drop. Though a tight fit, there is enough room at the bottom of the crack for three people and gear. You now have series of bolt stations to choose from and a decision to make about how to descend. There are 3 bolts and a piton on the left at the mouth of the crack, 2 additional bolts are present about 15 feet down at a small ledge and a mid-wall bolt station is located on a slanting ledge, which lies to the left of the line of the crack (facing downcanyon). My suggestion is to rappel from the mouth of the crack to the bolt station 15 feet below. From here you can either rig a 200-foot rope to the mid-wall bolt station (the first person down will need to pedal to canyon left to reach it), then rig another 200-foot rope to the base of the wall; or, rig a 320-foot rope and complete the rappel in one shot. The wall is nearly vertical the entire way making it prudent for those rappelling to hang their packs and rig their descending device for high friction. The first person down should be prepared to provide a fireman's belay for the rest of the party if needed. Be aware that the crack is well known for sticking ropes. The last person down should be very careful with rope placement and a backup rope should be carried in the event it cannot be retrieved.

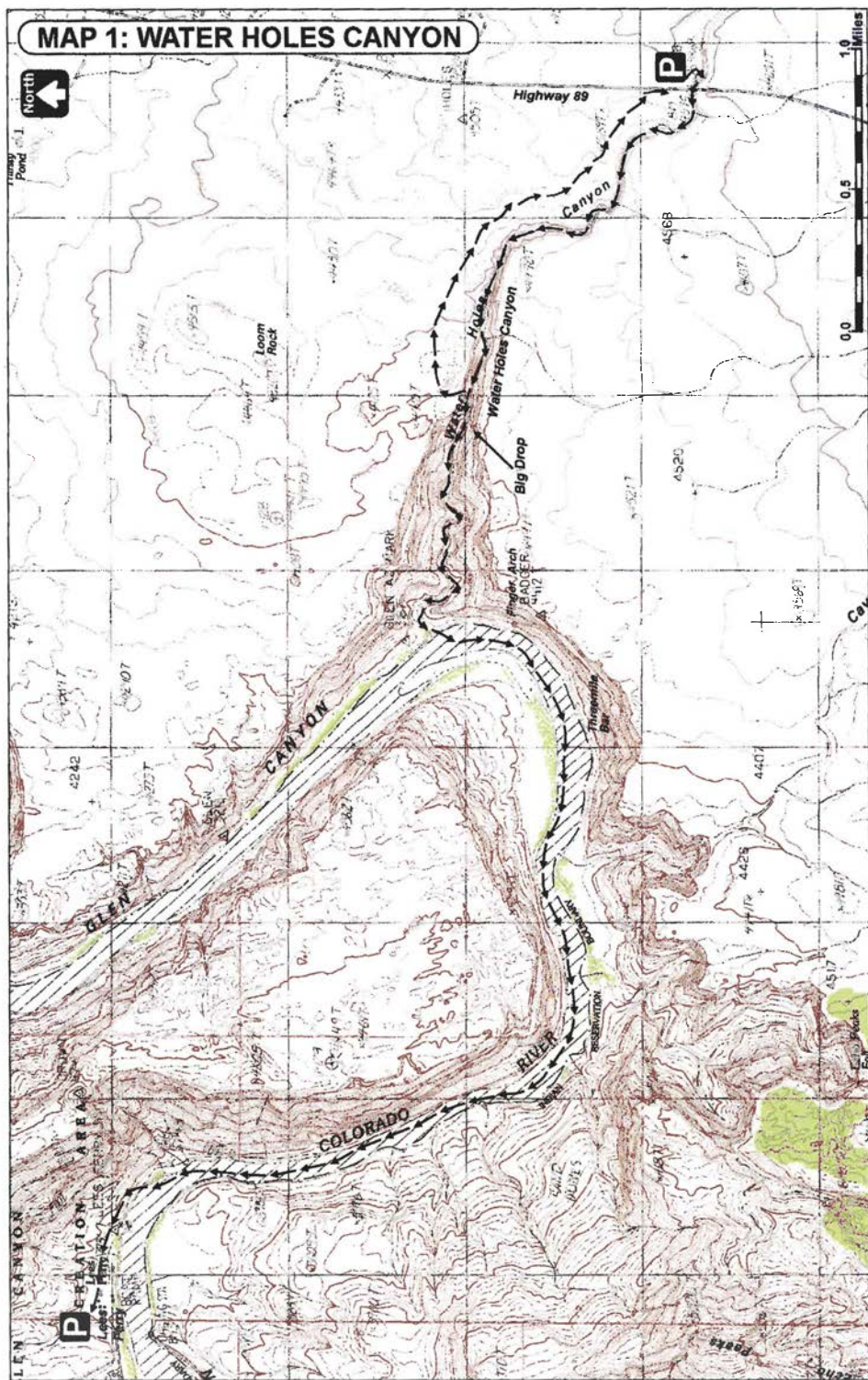
After pulling the rope, continue downcanyon to rappel #11, which is 25 feet in length from 2 bolts on the left located below a pothole. The final rappel, #12, is 90 feet in length from a single bolt and hanger located around a corner on the right. It is an easy walk the remainder of the way to the mouth of the canyon and the Colorado River.

Inflate your packraft and begin the 3.6-mile float trip to the take out point at Lee's Ferry. Looking on the bright side, there are no rapids in this stretch of the river to have to worry about, the downside is the current is dreadfully slow making the trip a somewhat boring affair. In fact, the current is so slow you'll need to paddle in some sections to make any progress at all. Plan on the float taking between 2–3 hours. You can take out of the river on the right anywhere between the Spencer trail and the Lee's Ferry boat ramp.

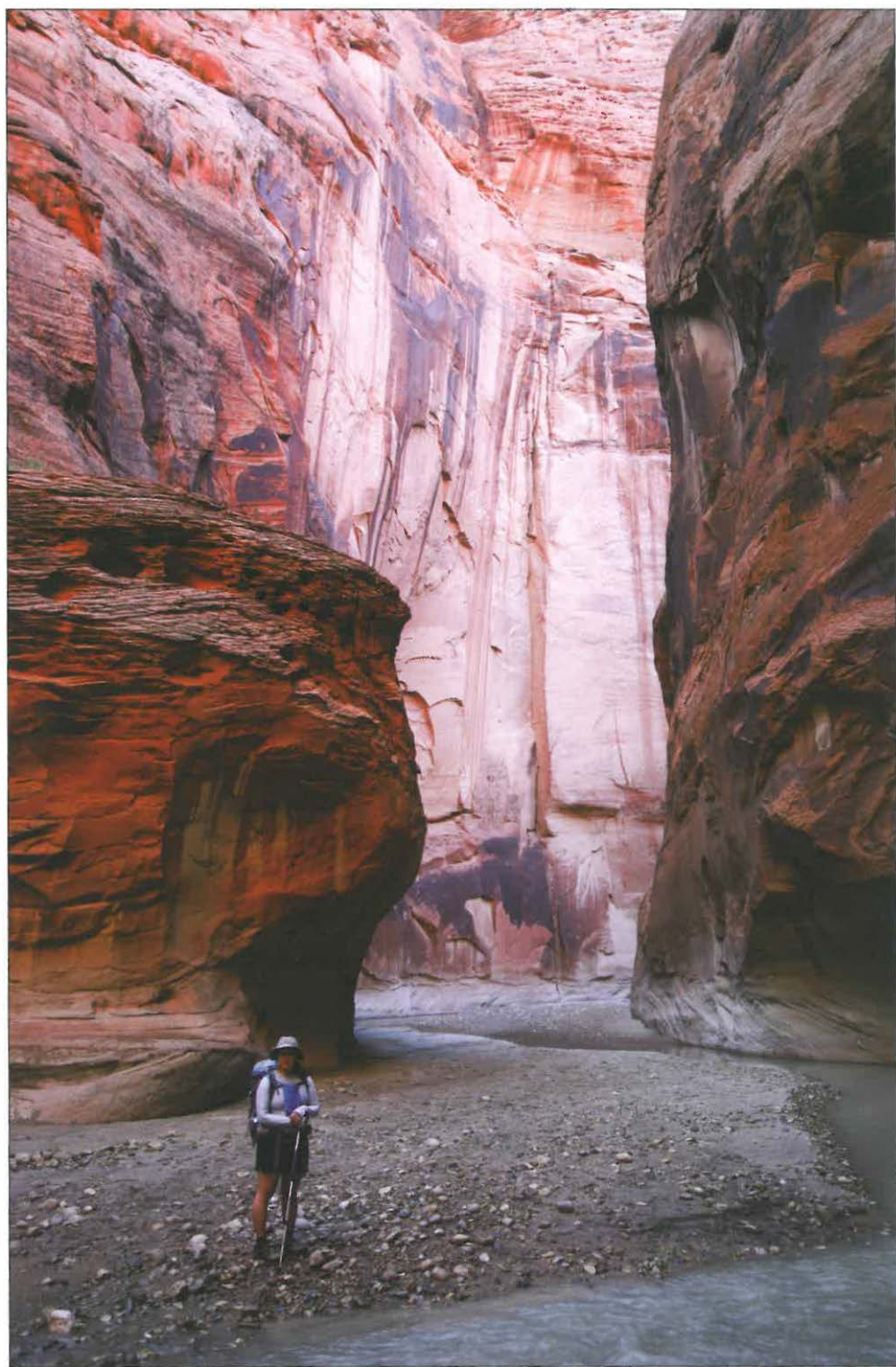
## *AUTHOR'S RATING ★★★★★*

I'd explored Water Holes Canyon several times before finally completing a through trip and float to Lee's Ferry, including an ill fated trip in which we stuck a rope at the big rappel. Since this appears to be a common occurrence, be prepared to haul out ropes stuck by past parties. On the through trip, our group hauled out 450 feet of rope and a 200-foot pull-cord abandoned by another party.









*Typical view in the narrows of Paria Canyon*

## 2: Paria Canyon

**OVERVIEW:** This classic hike begins at the White House Trailhead and follows the Paria River to its end at the Colorado River and Lee's Ferry. Though not technically part of Grand Canyon, Paria Canyon is an important tributary of the Colorado River and a wonderful hike.

**LOCATION:** Paria Canyon/Vermilion Cliffs Wilderness, Glen Canyon National Recreation Area

**REQUIRED GEAR:** Standard backpacking equipment and shoes you don't mind getting wet.

**SPECIAL CONSIDERATIONS:** Water is best obtained from one of the many springs in Paria Canyon (see maps). The Paria River flows year round below the confluence with Buckskin Gulch but is often very silty. Be aware that the difficulty of the hike can vary with the time of year due to varying water levels and that conditions in the canyon can change with each rainstorm. Wading is found throughout the Paria, and quicksand is occasionally encountered. The depth of the water will depend upon recent weather conditions. Flash floods are a very real danger at all times of the year. Obtain an accurate weather forecast prior to entering the canyon. A permit is required to hike or camp in the area; they are available for \$5 per person per day, from the BLM at: <https://www.blm.gov/az/paria/index.cfm?usearea=PC> or, if the website is down, by calling: (435) 644-4600.



<b>ACA Rating:</b> 1B VI	<b>Distance:</b> 39 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 4,320 – 3,140 ft.
<b>Time Needed:</b> 3 – 6 days	<b>Best Time of Year:</b> Spring, Summer, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> Yes
<b>Maps:</b> USGS West Clark Bench, Bridger Point, Wrather Arch, Water Pockets, Ferry Swale, Lee's Ferry 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

**WHITE HOUSE TRAILHEAD (START OF THE HIKE):** From Highway 89 between Kanab and Page (30 miles west of Page), head south at the Paria Ranger station located between mile markers 20 and 21. Follow the dirt road for 2 miles to the car park and camping area at the end (camping is \$5 per campsite per night).

**LEE'S FERRY (CAR SPOT):** From Flagstaff, drive north on Highway 89. Turn left on Highway 89A, drive over the Navajo Bridge. Turn right at the sign for Lee's Ferry and follow the signs for the boat ramp. Drive past the boat ramp a short distance to park in the Long Term Parking Lot near the old ferry structures.

### TRIP DESCRIPTION

From the White House Trailhead parking lot, follow the sandy track west into the Paria River drainage and simply head downstream. Don't bother trying to keep your feet



dry, you'll be hiking in the river much of the time. The Paria starts out wide and shallow with areas of deep sand that will slow your progress. After about 2.5 miles of hiking, you will pass under a set of power lines and at the 4-mile point the narrows begin. Though not a narrow slot, the river cuts deeply into the Navajo Sandstone and soon begins to travel between towering walls. Near the 7-mile point you'll pass Slide Rock Arch, which is not a true arch, but a large piece of the left canyon wall that has fallen into the canyon forming a little tunnel. A short distance later is the confluence with Buckskin Gulch, which comes in from the right.

Continue downcanyon through an extremely scenic canyon to a fairly reliable spring that may be found on the right at the 9.3-mile point. At the 10-mile point, the first of four fault-line cracks comes in from the right. A reliable spring is found at the mouth of the crack on the right. Just past the 12-mile point is Big Spring (also on the right) the largest spring in the canyon. A popular campsite sits just opposite the spring on a prominent bench.

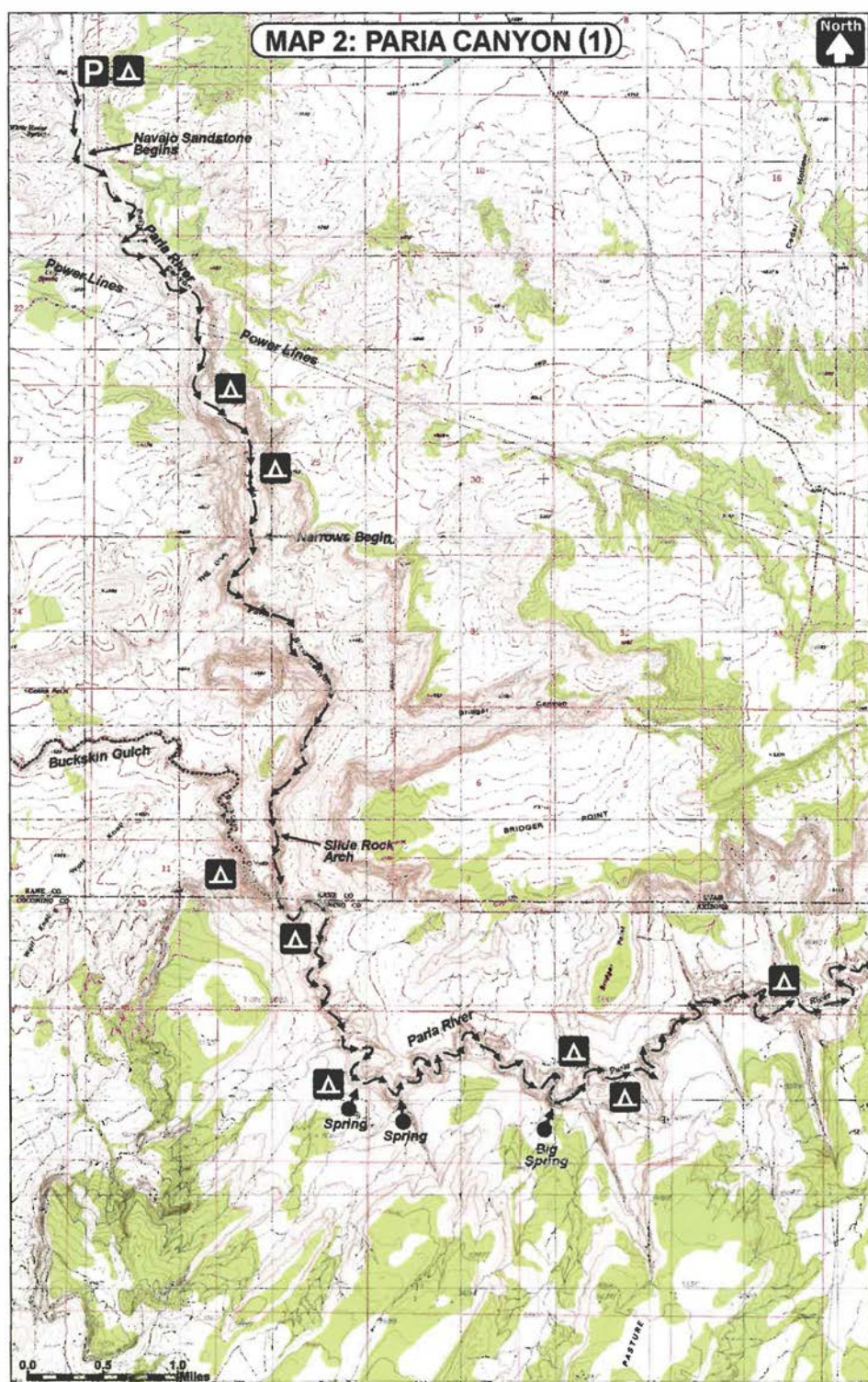
It's more of the same below Big Spring as you pass by the second and third fault-line cracks. Just past the fourth crack is the Adams Trail and route to the rim, which is on the right (the trail is most easily seen by walking past it then turning around to look upcanyon). The trail was constructed in the late 1930s to install a pipe and water pump to get water up to the rim. The pump may be seen a few miles downstream at the 17.5-mile point in Judd Hollow on the left. Continuing downstream to just past the 19-mile point to where a minor side canyon enters from the right. This small box canyon is named "The Hole" and features a seep from which it may be possible to get water. Another mile and a half below The Hole, Wrather Canyon enters the Paria on the right. This canyon features a trail that leads 0.75 miles to Wrather Arch, the 5th largest natural arch (by span size at 246 feet) in the world. The hike to the arch is well worth a detour. In addition to a spectacular arch, the canyon itself is quite pretty and features an intermittent spring. Due to the fragile nature of Wrather Canyon, no camping is allowed.

Below Wrather Arch the canyon begins to widen and soon the Kayenta then Moenave Sandstone layers may be seen. Just past the 25-mile point you'll reach the last reliable spring, which drips from a small fern covered layer in the sandstone on the left. About a mile below the last reliable spring, Bush Head Canyon enters from the right with some nice campsites at its mouth. Below this drainage you'll have to route-find through some large boulders that have fallen into the Paria, making for slow going. Keep an eye out for a trail that appears on the right that provides easier traveling. Soon the trail becomes a well established path as the walls of the Paria fade into the distance.

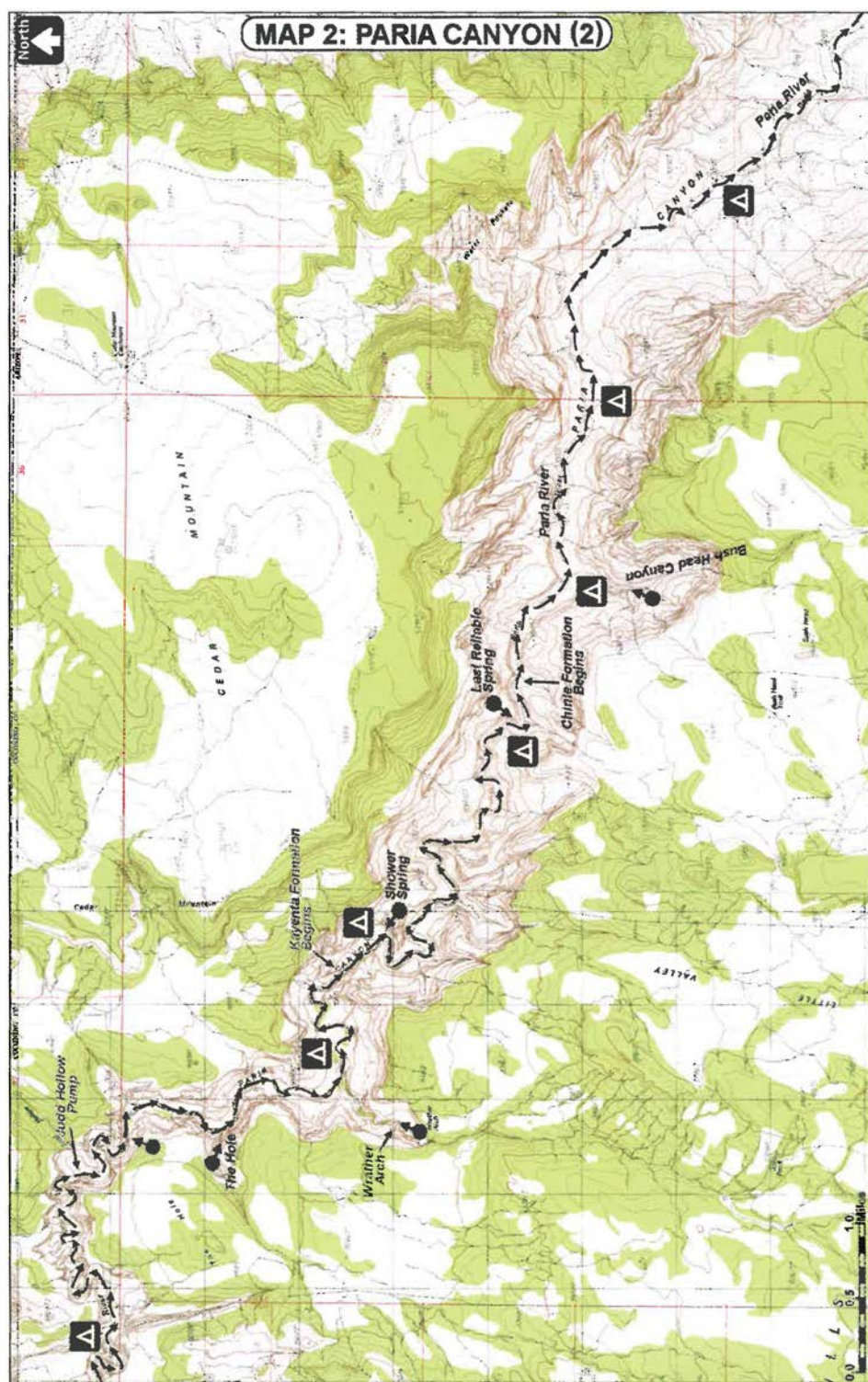
The walking is easy as you head downcanyon to mile 33.5 and the remains of the Wilson Ranch. The Moenkopi Formation begins just prior to the 35-mile point and you'll reach a marked boundary separating the Paria River/Vermillion Cliffs Wilderness from the Glen Canyon National Recreation Area. Passing mile point 37 you'll arrive at a trail register and soon thereafter at the Lonely Dell Ranch at mile point 38. Signs mark trail that leads to the long term parking lot and your vehicle.

## **AUTHOR'S RATING ★★★★★**

My wife and I and two friends completed the hike as a fairly casual three day backpacking trip. We broke the trip into three 13-mile days camping near Big Spring the first night and the last reliable spring on the second night. Along the way we hiked up Buckskin Gulch a short distance, to Wrather Arch and spent time exploring the lower portion of the canyon.

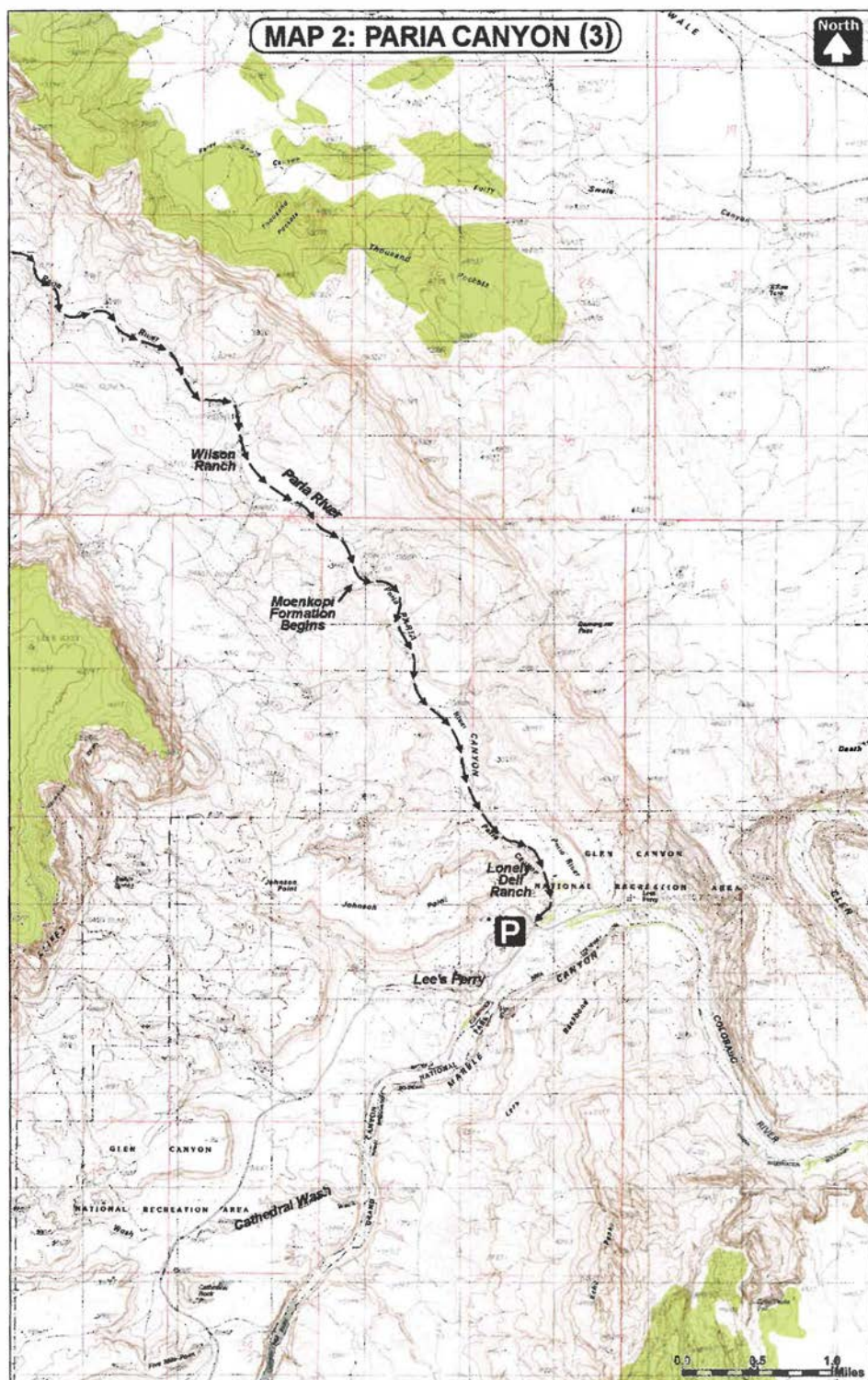








**MAP 2: PARIA CANYON (3)**







*Cathedral Wash*

## 3: Upper Marble Canyon Tributaries - 1

**OVERVIEW:** The short Colorado River tributaries described here are located just above the Navajo bridge in Marble Canyon. These include 2.8-Mile Wash (technical) and Cathedral Wash (non-technical), which lie on the western side of the river and 3.7-Mile Wash (technical) and 4.4-Mile Wash (technical route optional) on the eastern (Navajo Nation) side.

**LOCATION:** Navajo Nation/Grand Canyon National Park. North and South Rims.  
Use areas: AA9, SI9.

**REQUIRED GEAR:** **2.8-Mile Wash:** 2x200' ropes; **3.7-Mile Wash:** 2x150' ropes; for a technical descent of **4.4-Mile Wash:** 2x100' ropes; **plus:** 30' webbing, 3 rap rings, harness, descender, helmet, and carabiners for each. No special gear is needed for **Cathedral Wash**.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. Trips down 3.7-Mile Wash and 4.4-Mile Wash require a permit from the Navajo Parks and Recreation Department.



<b>ACA Rating:</b> See Trip Description	<b>Distance:</b> ~ 4.0 miles each loop
<b>Physical Difficulty:</b> Moderately Strenuous	<b>Elevation:</b> 3,580 – 3,100 ft.
<b>Time Needed:</b> 2 – 3 hours each	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Navajo Bridge, Lee's Ferry 7.5	<b>Navigation:</b> Moderate

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake and drive about 15 miles to Navajo Bridge.

**2.8-MILE WASH AND CATHEDRAL WASH:** Drive to the west side of the Navajo Bridge. Turn north towards Lee's Ferry. After 2 miles look for the pull out on the left (north) side of the road with a small interpretive sign for the "Eroding Cliffs". If you reach the balanced rocks on the left side of the road, you have gone too far. Park in the pull out next to the "Eroding Cliffs" sign.

**3.7-MILE WASH AND 4.4-MILE WASH:** Park at the Navajo Bridge Interpretive Center on the west side of the river.

### TRIP DESCRIPTION

**2.8-MILE WASH (RATING 3A I):** From the "Eroding Cliffs" sign, hike north towards Lee's Ferry along the road for 1.3 miles to GPS Point - UTM: 12S 444241 mE, 4078148 mN, WGS84 Datum. Leave the road at this point and walk down the shallow wash to the right (east). It's an easy stroll down the drainage, which really doesn't do anything interesting until just above the river where a 160-foot vertical rappel is encountered. The drop can be rigged using a small natural arch on the left as an anchor. Once down, pull your rope and remove your harness, then complete a short thrash to get up onto the bench on the right where a rather well developed fisherman's trail may be found. Follow the trail south to the mouth of



Cathedral Wash, then hike up this drainage back to the highway and your vehicle.

**CATHEDRAL WASH (RATING 1A I):** From the car pull out, cross the road to the northeast to the concrete bridge. Travel down into the canyon next to the corrugated drain pipe past a sign that reads: "All areas below the rim are administered by Grand Canyon National Park. Permit required for overnight use, firearms, ground fires and pets are prohibited." It's easy walking as you proceed downcanyon.

Soon the canyon begins to deepen and after about 15 minutes you'll reach a drop-off. This can be bypassed by climbing down on the right with little exposure. Shortly below, the canyon narrows nicely and you'll reach another drop, which can be easily bypassed by climbing around on the right. The next drop-off is easily negotiated by following a shelf on the left (and possibly the right as well, though the left side is easier).

Below this short section of narrows the canyon widens and before long you hear, then see the Colorado River. When ready, return the way you came.

**3.7-MILE WASH (RATING 3A I):** From the car park, walk to the east side of Navajo Bridge and travel northwards through a gate and fence along a distinct path. When the trail fades, simply walk cross-country to the north across a few minor dry washes to soon arrive at the drainage near GPS Point - UTM: 12S 445050 mE, 4075836 mN, WGS84 Datum. Turn left and proceed down the shallow wash, working your way around and through boulders as necessary. Eventually, you'll arrive at a vertical 125-foot drop-off just before reaching the Colorado River. Those who want to rappel this drop can sling a rock placed in a crack on the right at the top of the drop. Once down, remove your harness and pick up a minor trail that leads downriver along the bench. After a few hundred yards, the trail climbs up a break in the cliffs. Some climbing requiring the use of hands is necessary to get up and out of the canyon at this point. Once on the rim, walk cross-country to the south to the bridge and your vehicle.

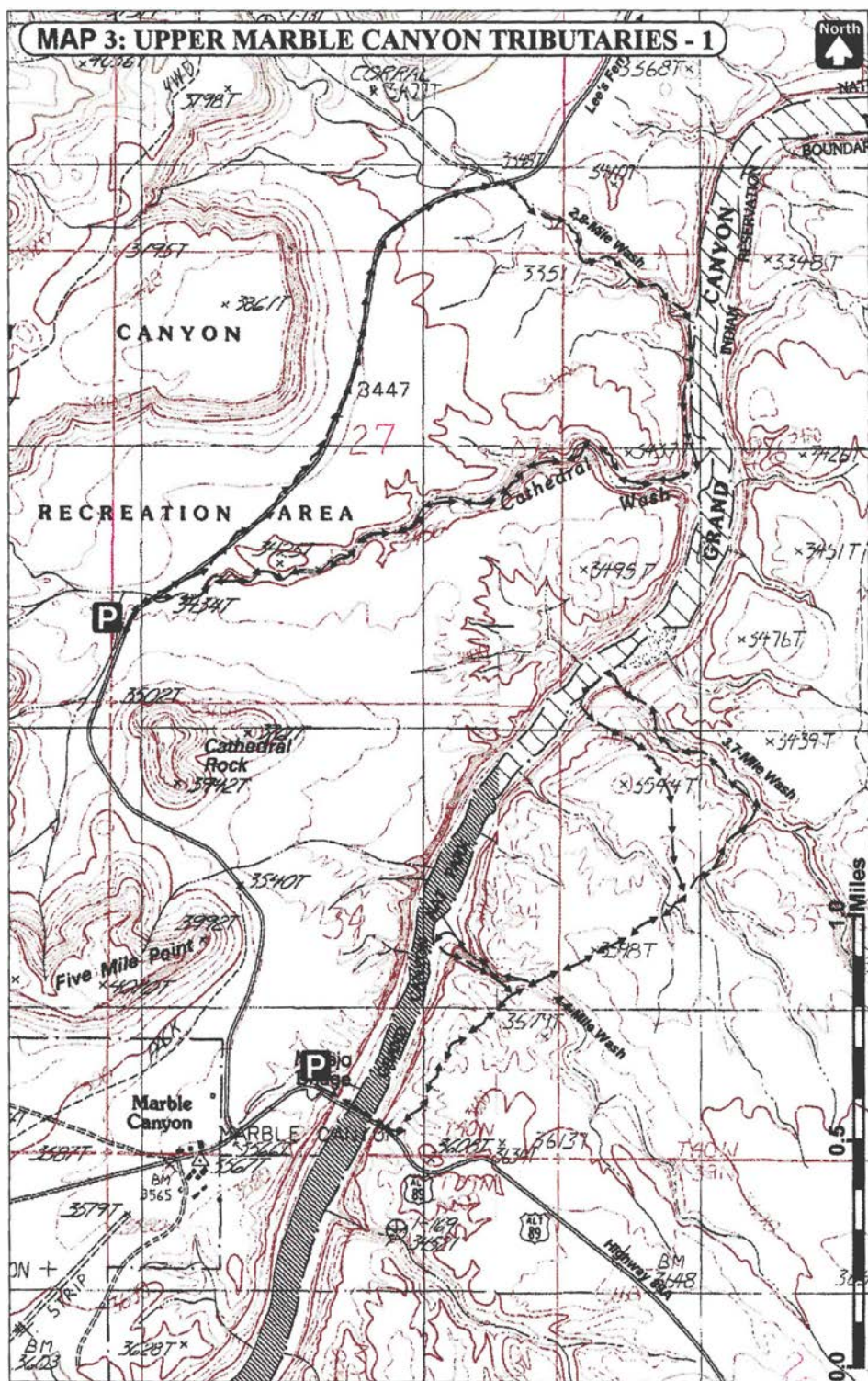
**4.4-MILE WASH (RATING 3A I):** From the car park, walk to the east side of Navajo Bridge and travel north through a gate and fence along a distinct path. When the trail fades simply walk cross-country to the north to soon arrive at the drainage near GPS Point - UTM: 12S 444293 mE, 4075271 mN, WGS84 Datum. There is a hikers trail that leads down the left side of the canyon to the river, but we'll go right down the drainage itself and use this trail on the return trip to the rim. A short distance down the canyon, you'll arrive at a 30-foot rappel using a pinch point at the top of the drop as an anchor. Rappel #2 may be found a short distance downcanyon and is 75 feet in length from a pinch point at the top of the drop into an area littered with beer cans and trash. A little downclimbing will bring you the remainder of the way to the Colorado River, which features a pleasant little campsite with views of the Navajo Bridge beneath some large tamarisk. When ready, pick up the steep, but short trail and follow it back to the rim. A brief cross-country hike to the south will bring you back to the bridge and your vehicle.

## **AUTHOR'S RATING**

**2.8-Mile Wash, 3.7-Mile Wash and 4.4-Mile Wash: ★★ Cathedral Wash: ★★★★★**

Though not terribly exciting, these canyons offer the opportunity for short hikes in Marble Canyon with a unique view of Navajo Bridge. I completed these in December at a time when other canyons in the area were inaccessible due to snow.

# UPPER MARBLE CANYON TRIBUTARIES - 1



## 4: Upper Marble Canyon Tributaries - 2

**OVERVIEW:** A few short Marble Canyon tributaries that lie just below the Navajo Bridge including 5-Mile Wash and 5.5-Mile Wash, which lie on the eastern (Navajo Nation) side of the river and Sevenmile Draw, which is on the western side.

**LOCATION:** Navajo Nation/Grand Canyon National Park. North and South Rims. Use areas: SI9, AA9

**REQUIRED GEAR:** **5-Mile Wash:** 2x150' ropes; **5.5-Mile Wash:** 1x100' rope; **plus:** 30' webbing, 2 rap rings, harness, descender, helmet, carabiners, drybag, packraft, paddle and personal floatation device for each. A wetsuit is required for the raft trip during cooler weather. **Sevenmile Draw:** 1x120' rope, 20' webbing, 1 rap ring, harness, descender, helmet, carabiners, and ascending gear (if doing the canyon as a down-and-back). Add a second 120' rope if you plan to pull your rope as part of a through trip.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. River travel is required in order to complete 5-Mile Wash and 5.5-Mile Wash, as is a permit from the Navajo Parks and Recreation Department.



<b>ACA Rating:</b> 3A II–III	<b>Distance:</b> 5.5 – 6.5 miles
<b>Physical Difficulty:</b> Moderately Strenuous	<b>Elevation:</b> 3,910 – 3,080 ft.
<b>Time Needed:</b> 5 – 9 hours	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> Yes for 5.5-Mile Wash
<b>Maps:</b> USGS Navajo Bridge, Lee's Ferry 7.5	<b>Navigation:</b> Moderate

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake.

**5-MILE WASH:** Follow Highway 89A about 15 miles to park at the Navajo Bridge Interpretive Center on the west side of the river.

**5.5-MILE WASH:** Pull off the road at any convenient spot near milepost 535.

**CAR SPOT AND SEVENMILE DRAW:** Continue on Highway 89A across the Navajo Bridge, past Lee's Ferry to between mile markers 539 and 540. Parking may be found at a large pull off on the north side of the road.

### TRIP DESCRIPTION

**5-MILE WASH:** Walk to the east side of Navajo Bridge and pick up a minor trail on the south side of the road and follow it south a short distance as it parallels the Colorado River to 5-Mile Wash. Walk up this drainage along the rim a short distance until you locate a safe spot to descend. Once in the canyon, simply head downstream. A short walk will bring you to the first rappel which is 110 feet in length using a rock wedged under a ledge on canyon right as an anchor. At the bottom of this drop, it's possible to hike the ledge to the right to descend a steep talus slope without the use of rope; however, it's safer and easier to use a rock wedged in a crack on the left as an anchor to perform a 100-foot rappel to the base of the cliff. Once down, you'll be faced with a series of small drop-offs, which decent climbers



will be able to descend without rope, though a belay might be prudent. A short walk below the last of the downclimbs will bring you to a grassy bench and the Colorado River.

Inflate your raft and float downriver for 1.5 miles to a point just below Sevenmile Draw (the next canyon to enter from river right). Exit the river at a point where the shore juts slightly into the water, below a point where the Coconino cliff has collapsed into a large pile of rubble (GPS Point - UTM: 12S 442566 mE, 4072510 mN, WGS84 Datum).

**5.5-MILE WASH:** From the car park, travel across the rolling plains in a northwesterly direction to enter one of the shallow fingers of 5.5-Mile Wash. You'll know you are in the right drainage if you're heading towards GPS Point - UTM: 12S 443871 mE, 4073170 mN, WGS84 Datum. If you're too far east, you're probably in 5-Mile Wash. Once the correct drainage is identified, hike down this shallow and rather uninteresting wash. About 15 minutes below the confluence of the left and right forks of the canyon, you will come to the first rappel, a 30-footer from either a rock horn on the right or a rock wedged under a huge boulder in the middle of the canyon.

The canyon then bends to the right and you'll have to complete a downclimb to bypass a keeper pothole, followed by another downclimb of a chute. The wash then bends to the left with views of the river below. Choose the path of least resistance down the wide and boulder strewn ravine. Just before reaching the river, you'll arrive at the second rappel, which is 50 feet in length from a pinchpoint formed by a large boulder a short distance back from the edge. There are good views of the Navajo Bridge spanning the gorge just upriver.

Inflate your raft and float downriver for 1 mile to a point just below Sevenmile Draw (the next canyon to enter from river right). Exit the river at a point where the rubble juts slightly into the water, below a point where the Coconino cliff has collapsed into a large pile of rubble (GPS Point - UTM: 12S 442566 mE, 4072510 mN, WGS84 Datum).

**SEVENMILE DRAW:** From the parking area on Highway 89A, walk across the road and into the shallow drainage of Sevenmile Draw (you'll have to duck under or climb over a barbed wire fence to do so). Proceed downcanyon into the gradually deepening drainage. A 15 minute walk will bring you to the confluence with the west fork of the canyon at a two stage pour-off. The first drop-off can be downclimbed by traversing to the right into the west arm of the drainage then descending a series of ledges. The second drop is 85 feet in length and requires rope to descend. *Note: After rains there may a muddy puddle at the bottom of this rappel.* There is a sturdy rock horn that can be used as a natural anchor on canyon right at the top of the drop. There are also bolts and hangers on both canyon right and left. After rappelling the water scoured chute, you can either pull your rope (if doing the loop hike) or leave it fixed (if you're returning the same way, or if you don't want to carry it and plan to swing around from the top to pick it up after completing the loop).

Below the rappel, you'll have to downclimb through a short boulder field, and then it's an easy stroll to the Colorado River, which is peaceful and quiet in this portion of Marble Canyon. When ready, you may either return the way you came or make a loop by using a small un-named drainage about 0.75 miles downriver.

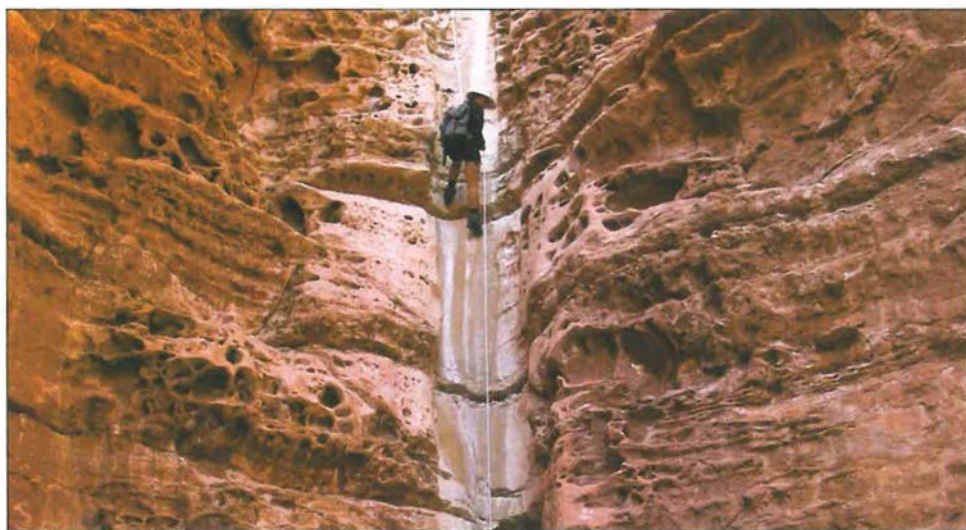
To complete the loop, follow the boulder strewn slope downriver, keeping an eye on the Coconino cliff band on your right. Approximately 0.4 miles down, the cliff has collapsed into a large pile of rubble (GPS Point - UTM: 12S 442566 mE, 4072510 mN, WGS84 Datum).

**EXIT:** Climb up the talus slope to the top of the Coconino cliff band and pick your way downriver along this upper band. There is a developing trail along portions of this section, the best is found high against the upper cliff band. Be careful of your footing, the slope consists of very loose rock and travels uncomfortably close to the edge of the cliff in places. After this traverse, you'll reach an obvious drainage that ends in a pour-off at the Coconino (this is the exit route).

While there is no trail, there are two routes I've found for the hike back to the road. The first is to climb down into this drainage, then turn right and follow the steep, rubble filled slope up and out of Marble Canyon. Continue along this drainage until it becomes shallow, and then travel cross-country in a more northerly direction back to Highway 89A and your vehicle. The problem with this route is that you'll be required to make a broad loop to the west in order to avoid the upper tributaries of Sevenmile Draw whose cliffs are too steep to easily cross. An alternative is to climb out of Sevenmile Draw at the first opportunity at a small break on the right (facing upcanyon). This route has a few short vertical pitches, but good hand and foot holds abound. Once out of the drainage, walk to the northwest to the confluence of the two major arms of Sevenmile at GPS Point - UTM: 12S 441681 mE, 4073231 mN, WGS84 Datum. Along the way, you'll have to cross a tributary of the canyon, but this doesn't provide much of an obstacle if you are far enough to the west. It's possible with a little route-finding to descend a steep slope at the confluence of the two Sevenmile arms. Once down, it's a simple matter of walking up the northern arm of the canyon to the highway and your vehicle.

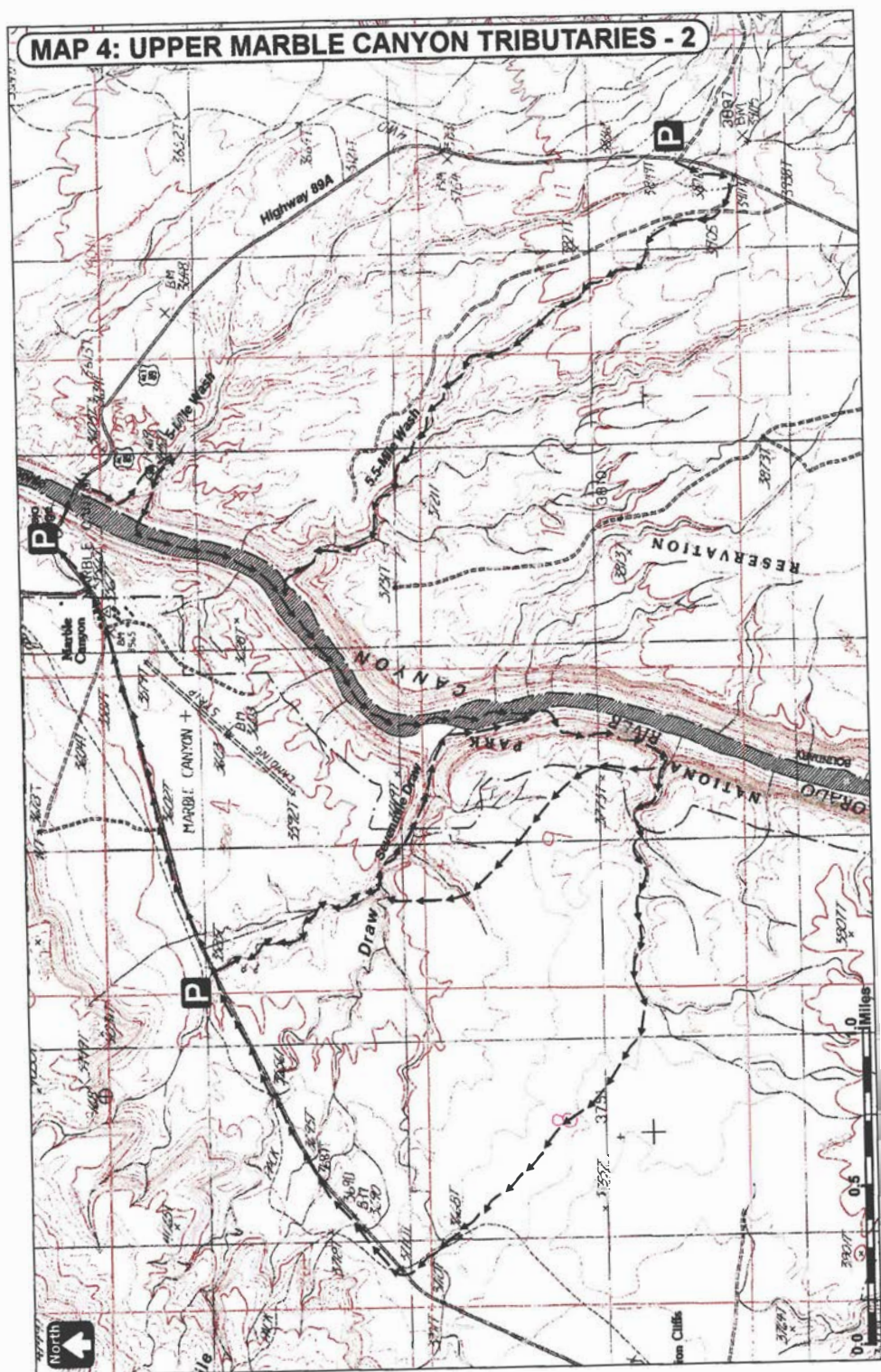
## *AUTHOR'S RATING ★★*

Though not terribly exciting canyons by Grand Canyon standards, these hikes provide a good introduction to Grand Canyon hiking and combine the elements of technical canyoneering and packrafting that are used throughout many of the trips described in this book. 5-Mile Wash and 5.5-Mile Wash are ideal for the first time packrafter since the river is flat and smooth in this section of Marble Canyon.



*Stephanie Martin rappelling in Sevenmile Draw*







## 5: *Badger Canyon*

**OVERVIEW:** This trip describes the two upper forks of Badger Canyon. Each is technical and features some nice narrows, a few rappels and good riverside views within Marble Canyon. A loop may be completed by hiking either up or downriver to breaks in the Coconino.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AA9

**REQUIRED GEAR:** **North Fork:** 1x150' rope; **South Fork:** 1x200' rope; **plus:** 40' webbing, 3 rap rings, harness, descender, helmet, and carabiners.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River.



**ACA Rating:** 3A III

**Distances:** 5.6 – 8.3 miles

**Physical Difficulty:** Moderately Strenuous

**Elevation:** 3,720 – 3,070 ft.

**Time Needed:** 5 – 9 hours

**Best Time of Year:** Fall, Winter, Spring

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Navajo Bridge 7.5

**Navigation:** Easy

### *DRIVING DIRECTIONS*

Badger Canyon is located in the Marble Canyon area of the Grand Canyon. From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake, crossing the Navajo Bridge 15 miles later.

**NORTH FORK:** Continue on Highway 89A to between mileposts 542 and 543 to a concrete bridge that spans the narrow drainage of Badger Canyon. Find a spot along the road nearby where the shoulder is wide enough to park.

**SOUTH FORK:** Continue on Highway 89A to park between mileposts 543 and 544 at a pull off near one of the yellow “No Passing Zone” signs.

### *TRIP DESCRIPTION*

**NORTH FORK:** From the bridge at Highway 89A, walk upcanyon a short distance until the drainage becomes shallow enough to enter. Drop into the wash and proceed downcanyon to pass beneath the bridge. A short distance later you will pass a small gauge station on the left. The canyon is fairly shallow for the first 15 minutes until you arrive at a confluence with a drainage coming in on the right and a dryfall. It is possible to get down the dryfall by working your way right, along a ledge, into the right-hand arm then climbing down a steep, but not terribly difficult, series of shelves.

Fifty feet after this first dryfall is another drop-off and the first rappel. There are several holes dissolved in the rock on the right side of the canyon through which it is possible to thread webbing for use as an anchor. A rock jammed under a ledge on the left side may also be used. The rappel is 35 feet into a possible calf deep pool (each time I've been here, this was the only spot in the canyon in which wading was required). About 75 feet below the first rappel point is the second drop, which consists of a nice polished chute with a ledge on the left. You could either use the chockstones at the top of the chute on canyon left as an anchor point (approximately a 60-foot rappel and a good photo opportunity), or walk the ledge on the

left a short distance to a bolt and hanger (a 45-foot rope is sufficient to accomplish the descent from the bolt). Below this point is a nice, if short, stretch of narrows.

Farther downcanyon, you'll come to a 25-foot dryfall, which can be bypassed by walking along the breakdown on canyon right and route-finding your way back down to the canyon floor. Below, the canyon passes through another stretch of pleasant narrows to arrive at the south fork of the canyon, which enters from the right.

**SOUTH FORK:** The start of the south fork of Badger Canyon begins just east of the highway. Climb down into the shallow drainage at the concrete culvert and head downcanyon. The canyon is shallow and flat in the upper section as it winds its way to the northeast. The drainage slowly begins to deepen as you advance and soon you'll reach a 30-foot drop-off, which may be downclimbed by more experienced hikers, with some exposure, using a series of ledges on the right side.

Continue downcanyon to arrive at a scenic section of narrows and the first rappel which may be rigged using two bolts and hangers (one old, one new) located on a ledge a short distance downcanyon on the left. There is a large pool in the bottom of the canyon, so if you'd prefer to keep your feet dry, it's better to rappel 20 feet to a shelf, which may then be followed downcanyon below the pool. A few minor downclimbs will bring you to a 5-foot pour-off into a shallow pool. After belaying the less experienced members of the group, good climbers can climb around on the left to a point where they can jump down.

The canyon begins to widen, and just beyond arrives at a large pour-off. While it might be possible to climb down on the left, the loose and crumbly rock makes this a risky proposition. Instead, sling one of the large boulders on the left at the top of the drop to complete a 100-foot free hanging rappel to the canyon floor. Once down, pull your rope and walk a short distance to the junction with the main fork of Badger Canyon.

**CONTINUATION OF BOTH FORKS:** Continue downcanyon to arrive at a 25-foot dryfall. The anchor point is one of the large boulders on the slope on the right side of the canyon (which requires 50 feet of rope) or a fractured rock on the left (which may be used to avoid a pool occasionally found at the base). Below this drop you will begin to hear the faint roar of the Colorado.

It's an easy flat walk the remainder of the way to the river, which features views of Marble Canyon as well as the mouth of Jackass Canyon directly across the river. The lower section of Badger Canyon lies within Grand Canyon National Park, which means a permit is required for overnight use.

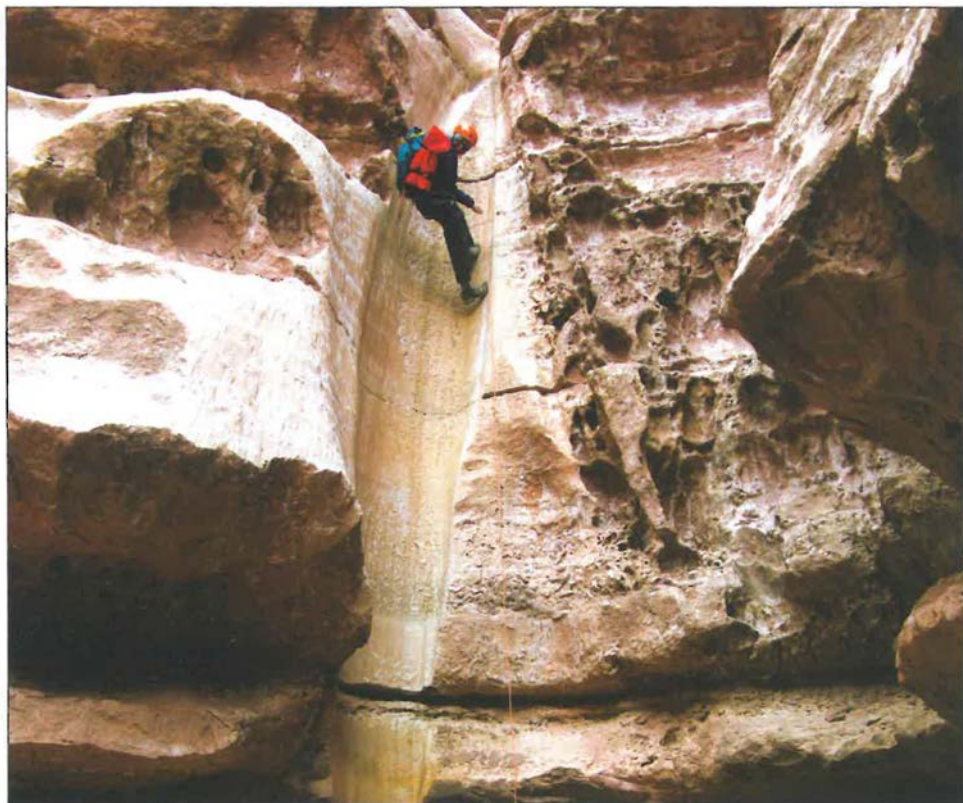
**EXIT OPTION 1 (UPRIVER):** To complete the loop, follow the boulder strewn slope upriver, keeping an eye on the Coconino cliff band on your left. Approximately 2 miles up, the cliff has collapsed into a large pile of rubble (GPS Point - UTM: 12S 442566 mE, 4072510 mN, WGS84 Datum). Climb up the talus slope to the top of the Coconino cliff band then turn around and pick your way downriver along this upper band. A faint use trail is present along portions of this section. Be careful of your footing, the slope consists of very loose talus and travels uncomfortably close to the edge of the cliff. After this traverse, you'll reach an obvious drainage that ends in a pour-off at the Coconino. Climb down into this drainage, then turn right and follow the steep, rubble filled slope up and out of Marble Canyon. Continue along this drainage until it becomes shallow, and then head cross-country in a more easterly direction back to Highway 89A and your vehicle.

**EXIT OPTION 2 (DOWNRIVER):** Head downriver for just under 1 mile climbing up and over the many huge boulders that cover the slope next to the river. The boulders diminish somewhat as you near the exit drainage and small beach located at GPS Point - UTM: 12S 440778 mE, 4068935 mN, WGS84 Datum. Walk to the downriver side of the beach then look up to identify a large debris pile that reaches to the Coconino cliff band above. Climb this steep debris pile on its left slope. As you ascend, a faint use trail begins to appear, which may be followed up to the Coconino cliff. Complete a minor climb on the left to reach a prominent ledge then follow this ledge right (towards the headwall of the drainage). At the end of the ledge will be two climbs of 6–8 feet. The first ascends a V-shaped notch; the second often has a rope fixed in place connected to a bolt and hanger above.

Once up, follow a use trail as it winds along the top of the Coconino to the head of the dryfall. The path then follows the left slope of the drainage (facing upcanyon) for some distance before ascending to the rim at a minor drainage by way of a series of switchbacks. Head cross-country to the east back to Highway 89A and then north along the road to your vehicle.

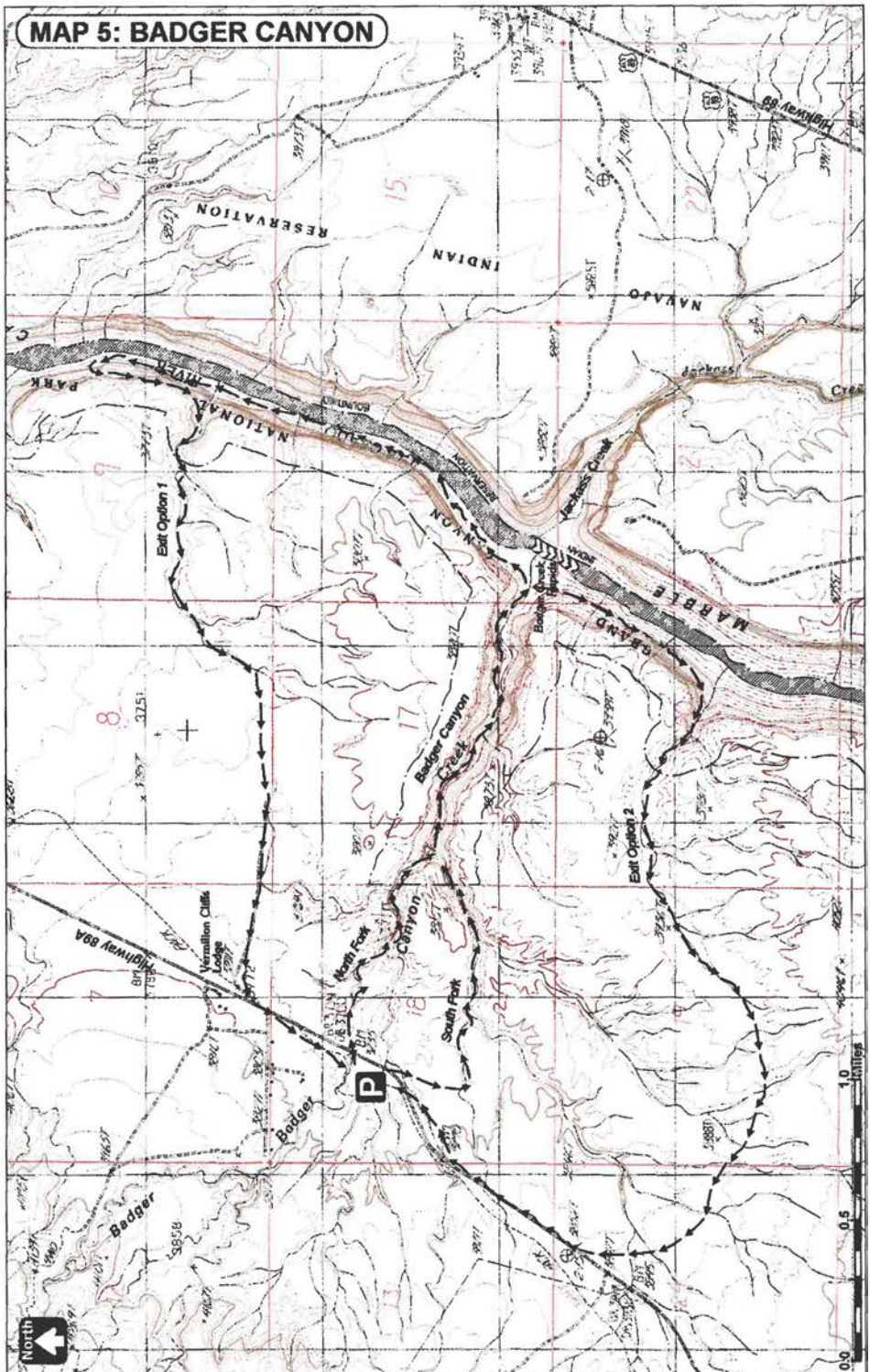
## **AUTHOR'S RATING ★★★★★**

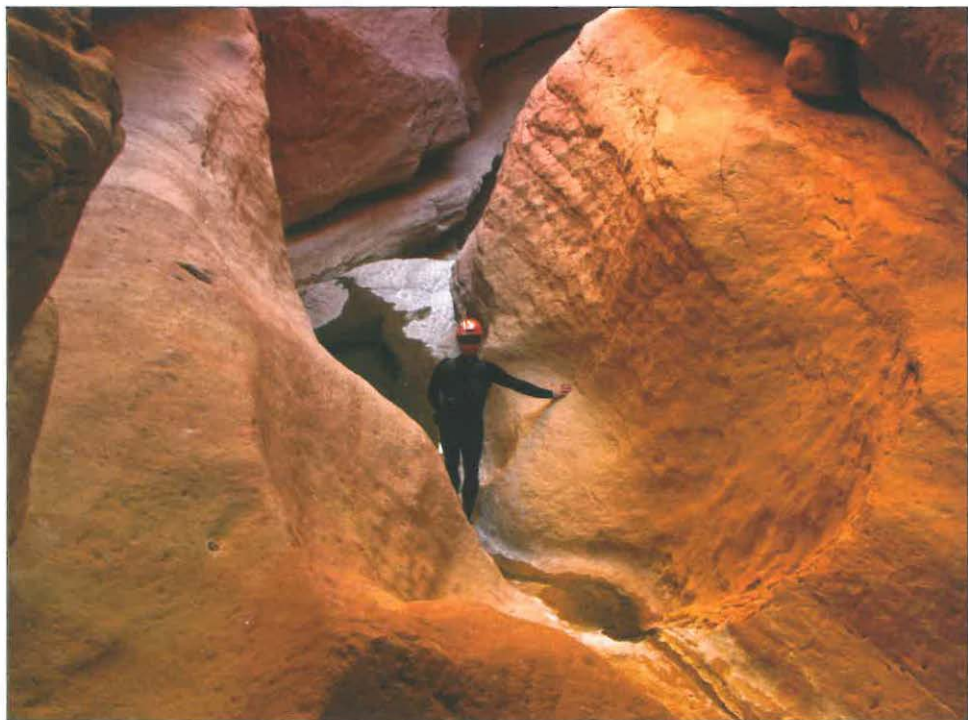
Badger is my favorite of the Marble Canyon technical canyons. Those without technical experience can experience much of the same unique geology of the area by descending the shorter, but equally pretty, Cathedral Wash near Lee's Ferry.



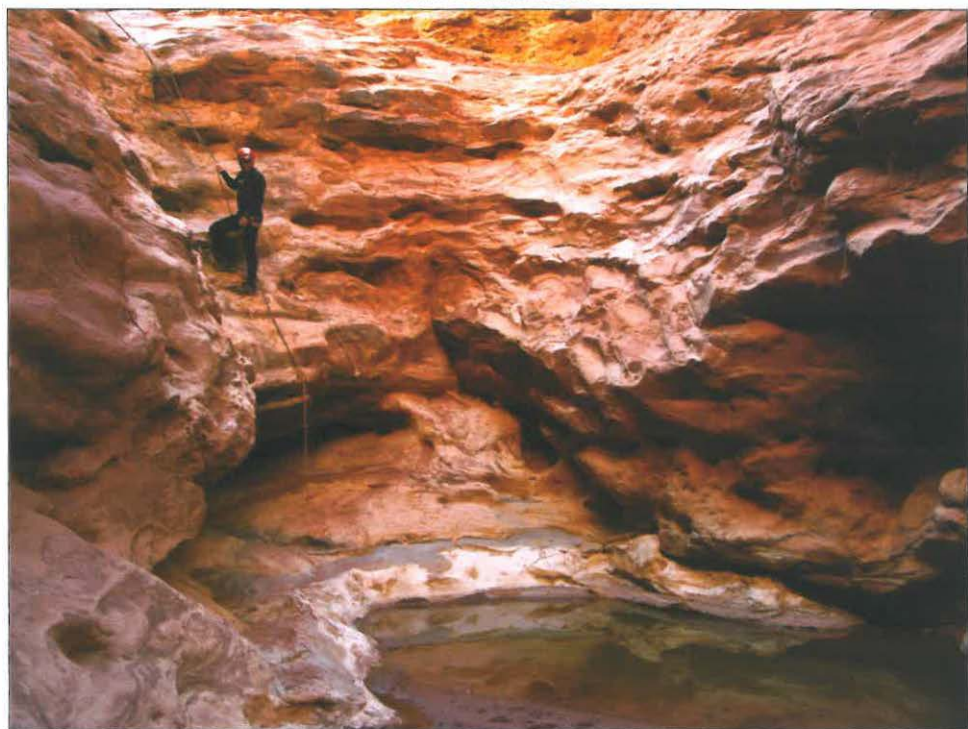
*Mike MacPhee at the second rappel in Badger Canyon*







*Jackass Creek: South Fork*



*Jackass Creek: Hand-line and dryfall*



## 6: Jackass Creek

**OVERVIEW:** A half day down-and-back hike through a nice canyon to the Colorado River. This route is frequently used by Navajo fishermen seeking easy access to the river.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use area: SI9

**REQUIRED GEAR:** 1x50' rope

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. This hike requires a permit from the Navajo Parks and Recreation Department.



<b>ACA Rating:</b> 2A II	<b>Distance:</b> 5 miles
<b>Physical Difficulty:</b> Moderately Strenuous	<b>Elevation:</b> 3,945 – 3,080 ft.
<b>Time Needed:</b> 4 – 6 hours	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Navajo Bridge Bitter Springs 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake. Drive to a point just past milepost 532 and park at a dip in the road at a moderately sized drainage that runs to the west. GPS Point - UTM: 12S 443185 mE, 4066887 mN, WGS84 Datum

### TRIP DESCRIPTION

**MIDDLE FORK:** From Highway 89A walk into the shallow drainage where it crosses the highway, climbing over or under barbed wire fences as necessary. The walking is easy in the bottom of the wash and the canyon quickly begins to deepen. Soon you will pass a drainage entering from the right (north); then farther down, you'll reach a junction with a large canyon entering from the right and a smaller canyon that enters on the left.

**SOUTH FORK:** Head west from Highway 89A crossing a few minor gullies to enter the South Fork of Jackass after about a third of a mile. The hiking is uneventful as you travel down this drainage until a point near the confluence with the main canyon where the canyon forms a short stretch of very scenic narrows. Depending on recent weather, several deep pools might be present in this section and you'll have to do some fancy footwork to keep your feet dry by climbing around on shelves on one side of the canyon or the other. A small drop-off is found below the pools that can be negotiated by either climbing directly down the watercourse (harder) or using a fixed hand-line that may be found on a ledge on the right (easier). A short walk below will bring you to the confluence with the main drainage.

**CONTINUATION OF BOTH FORKS:** Just below the confluence, you will arrive at a 40-foot dryfall. There are usually several fixed ropes in place at this point for use as a hand-line. Good climbers should be able to negotiate this obstacle without the use of a rope as long as the rock is dry. Below the drop-off is a pleasant, if short, stretch of narrows and soon you will hear the faint roar of the Colorado River in the distance. Lower in the canyon you will encounter a number of large boulders, which require some scrambling to negotiate, though nothing that presents much difficulty.

After about an hour and a half from the start of the hike you will pass a sign that

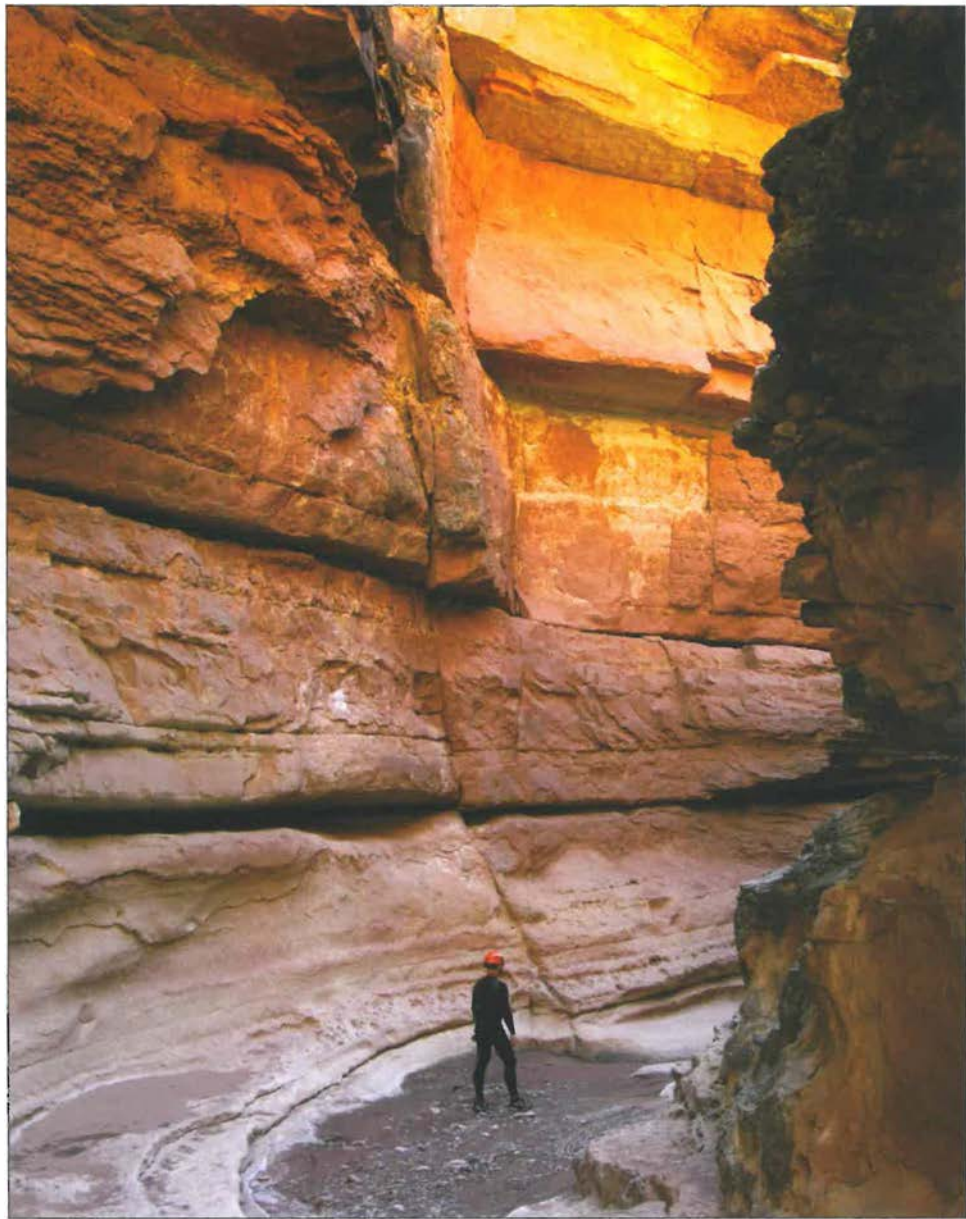


# EASTERN GRAND CANYON

marks the boundary of Grand Canyon National Park, and arrive at the Colorado River soon thereafter. The canyon you see coming in directly opposite is Badger Canyon. When ready, return to Highway 89A by way of the Middle Fork.

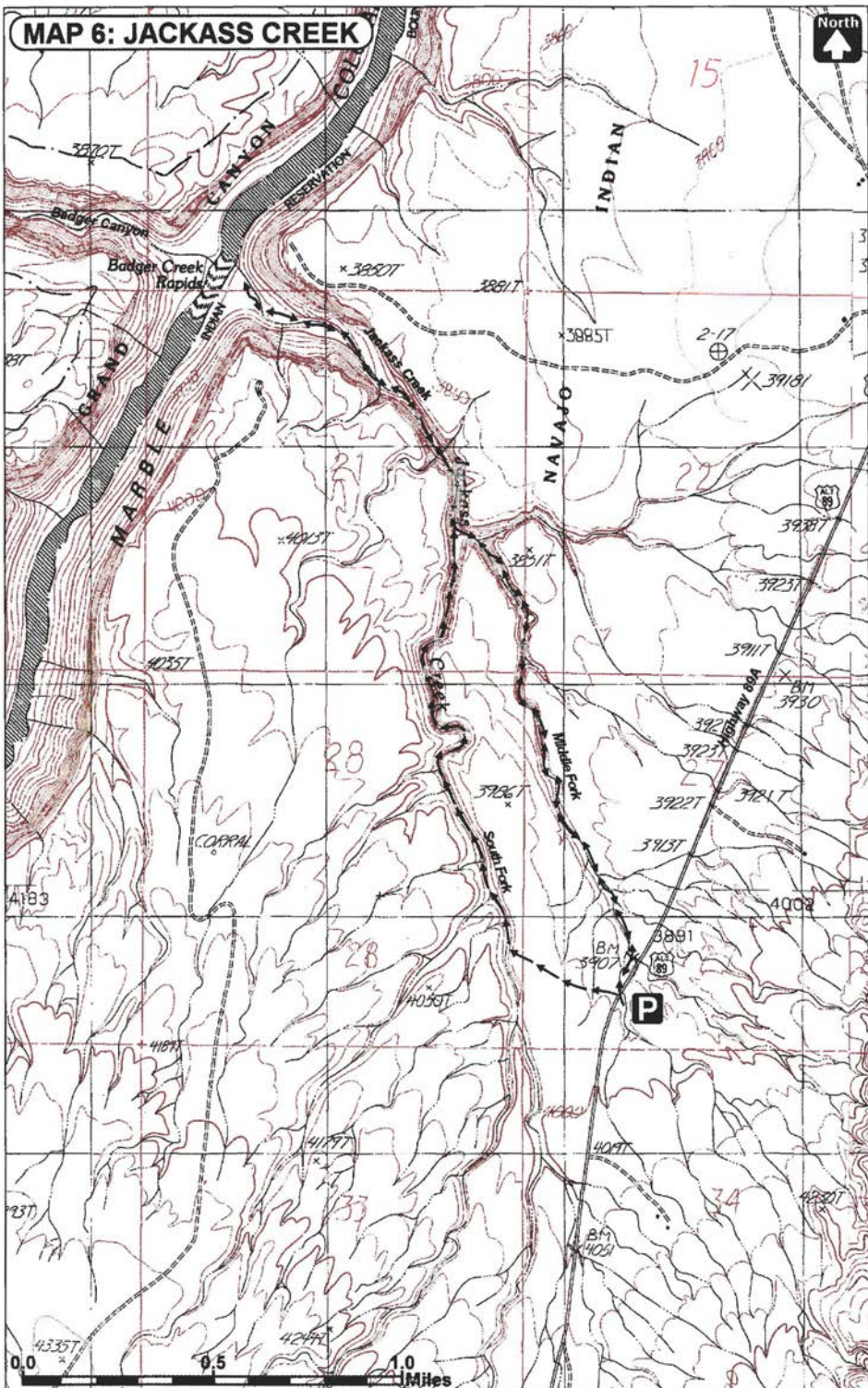
## *AUTHOR'S RATING ★★★*

My wife and I hiked the Middle Fork to the river and back at a casual pace in 3.5 hours. At a later date I explored the Southern Fork and was pleasantly surprised to find a great little section of narrows.



*The narrows of Jackass Creek*

North  
↑







*North Fork of Soap Creek (Photo by Rich Rudow)*



## 7: Soap Creek

**OVERVIEW:** Two routes down Soap Creek are described in this section: 1) the standard, non-technical hike, which descends the southern boulder-filled arm of the drainage to the Colorado River, and; 2) a technical descent of the north fork of the canyon. Soap Creek is located in the Marble Canyon area of Grand Canyon.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AA9

**REQUIRED GEAR:** **North Fork:** 1x200' rope, 30' webbing, 3 rap rings, harness, descender, helmet, and carabiners. No special gear is required to descend the **South Fork** of the canyon.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. The canyon is best completed when conditions are dry due to the presence of thick mud after it rains.



<b>ACA Rating:</b> See Trip Description	<b>Distance:</b> 7.3 miles
<b>Physical Difficulty:</b> Moderately Strenuous	<b>Elevation:</b> 4,080 – 3,060 ft.
<b>Time Needed:</b> 4 – 6 hours	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Bitter Springs 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake, crossing the Navajo Bridge 15 miles later. Just past milepost 548, turn left on a well-graded dirt road at the sign for Soap Creek. Go through the gate and follow the brown hiker signs 0.6 miles to the trailhead and register.

### TRIP DESCRIPTION

**NORTH FORK (RATING 3A II):** From the parking area and trail register, head cross-country to the north heading towards the white water tank located up on the cliffs as a guide. Soon, you'll reach a gate for the airport that can be used to pass through a barbed wire fence to gain access to Highway 89A. Turn right (north) on Highway 89A and walk about a mile to the parking area for the balanced rocks. Enter the canyon above the bridge and walk down the drainage. The canyon is shallow and uninteresting at first, though the stroll will give you an idea of whether conditions are suitable for a descent. *Hint: if you are sinking up to your knees in thick mud, conditions are not ideal.*

Soon, you'll reach a small pour-off, which can be bypassed by walking the bench to the left a short distance to climb down at any convenient location. A short distance below, the canyon drops into a short, but scenic, slot that requires rope to descend. Downclimb on the right to a chockstone that can be used to rig an anchor for the first rappel, which is a double drop (the second into a pool) totaling 100 feet. Downclimb to another pool and round a corner to arrive at the lower rappel, which is 60 feet in length from a rock wedged under a huge boulder on the left into a wide, boulder-filled ravine.

Route-find a way down through the boulders, avoiding deep mud puddles where possible. Eventually, you'll arrive at a large pour-off that can be rappelled using a pinch

point under a large boulder on the right. At the bottom of this 75-foot rappel, you can remove your harness for the short hike to the confluence with the South Fork of the canyon. Either head left, down to the Colorado River, or turn right and head up the South Fork back to your vehicle at the Soap Creek Trailhead.

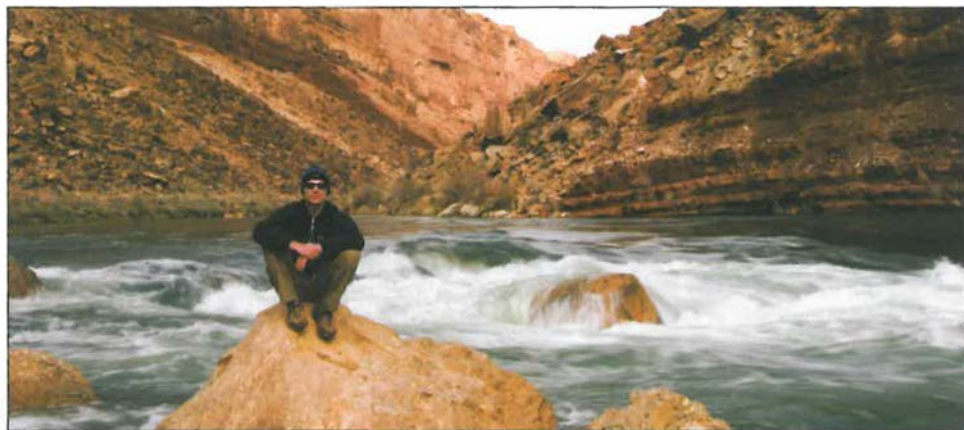
**SOUTH FORK (RATING 1A II):** From the trail register, head down the most prominent of the sandy washes in front of you. After about 15 minutes, you'll enter the Toroweap Limestone and a series of drop-offs (all of which are easily downclimbed). As you proceed, the canyon deepens significantly. Soon you will reach a spot where the South Fork enters from the right, stay left and continue downcanyon.

The going becomes slower as you are forced to negotiate large boulders that have fallen into the canyon from above. Look for two cairned routes around on the left, which bypass the bulk of these obstacles (the second cairned route climbs up on the slope before descending back to the canyon floor). Just below, you'll encounter a dryfall and 15-foot pour-off. It is possible to downclimb this falls with some exposure by inching around on a small ledge on the left until you reach a point where you can climb down (a fixed rope may be in place at this spot); however, most people will prefer to bypass this section altogether. This can be done by reversing your steps above the falls to identify a large tilted boulder on canyon right (the right side of the canyon facing downstream). There is a cairn and fairly well established trail that leads up and around on the right allowing you to avoid the dryfall.

Below, there are a few more large boulders to negotiate, and one spot where a fixed rope may be in place for use as a hand-line, then it's easy walking all the way to the Colorado River. Along the way, you will pass a prominent canyon that enters from the left (this is the North Fork of Soap Creek), then, just before reaching the river, you'll pass a small steel sign welcoming you to Grand Canyon National Park. The river makes a nice spot for a snack and there is a large sandy area for camping on the south side of the drainage (a permit is required for overnight use). When ready, return the way you came.

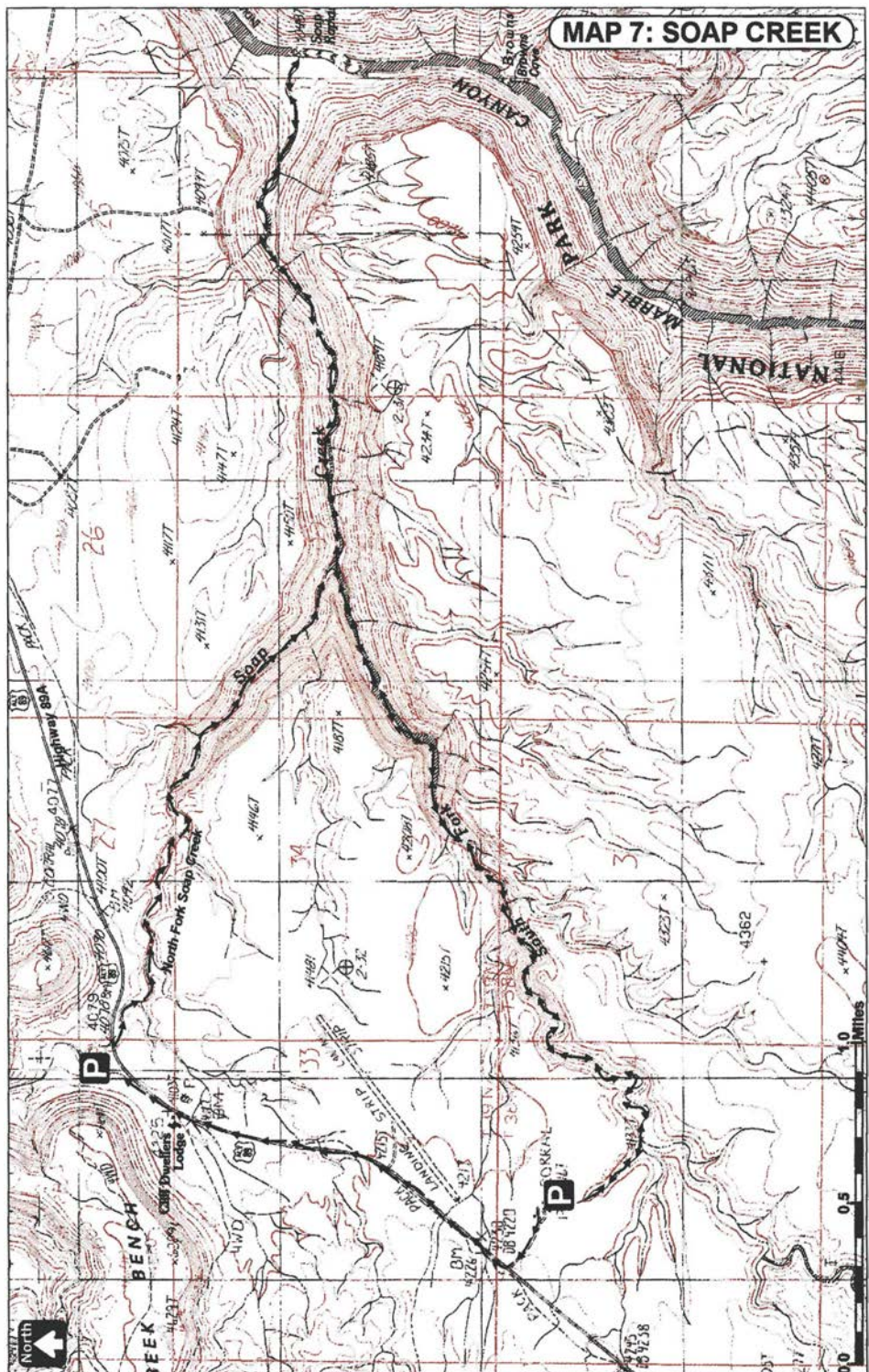
### **AUTHOR'S RATING ★★**

There is nothing terribly remarkable about the South Fork of Soap Canyon and no narrow sections, but it's a nice enough route to the Colorado River. The North Fork offers a bit more excitement and features a surprisingly narrow, if short, slot.

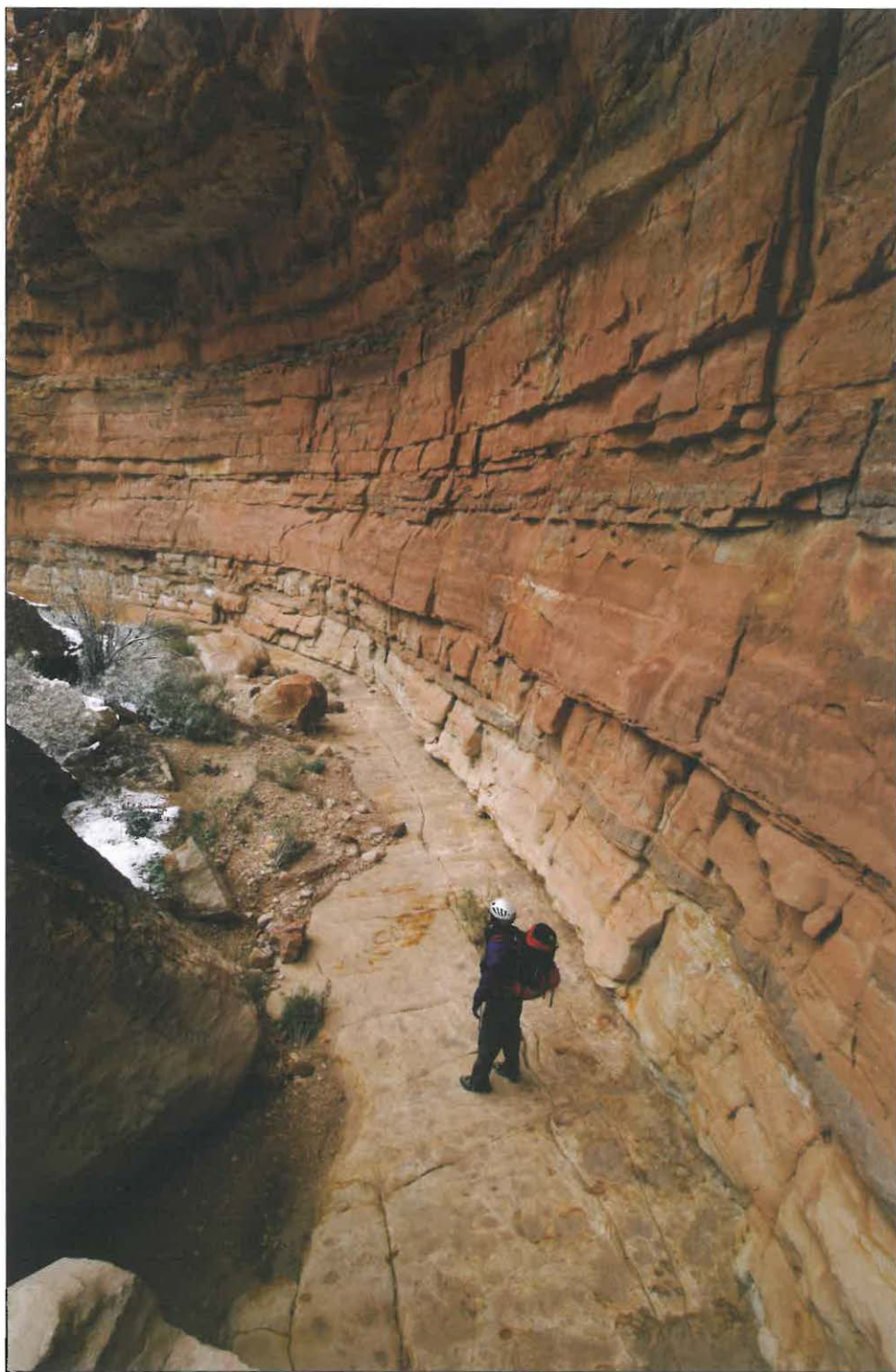


*Self portrait at Soap Creek Rapids*









*12.2-Mile Wash*

## 8: Salt Water Wash and 12.2-Mile Wash

**OVERVIEW:** Two routes in the area are described in this section: 1) a non-technical hike down Salt Water Wash to the Colorado River and back, and; 2) a loop, featuring technical descent of 12.2-Mile Wash to exit via Salt Water Wash. The canyons are located in Marble Canyon on the eastern (Navajo Nation) side of the river.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use area: SI9

**REQUIRED GEAR:** **12.2-Mile Wash:** 1x200' rope, 20' webbing, 1 rap ring, harness, descender, helmet, and carabiners. No special gear is required to descend **Salt Water Wash**.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. This hike requires a permit from the Navajo Parks and Recreation Department.



<b>ACA Rating:</b> See Trip Description	<b>Distance:</b> 9.0 miles
<b>Physical Difficulty:</b> Moderately Strenuous	<b>Elevation:</b> 4,625 – 3,020 ft.
<b>Time Needed:</b> 4 – 6 hours	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Bitter Springs 7.5	<b>Navigation:</b> Moderate

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake. Pull off the road at any convenient spot between mileposts 528 and 529.

### TRIP DESCRIPTION

From the parking spot along Highway 89A, travel cross-country to the west. The first significant drainage you cross is Salt Water Wash (GPS Point - UTM: 12S 440306 mE, 4061890 mN, WGS84 Datum). At the point where you enter the drainage, you may want to build a cairn marking the entry point so that you know where to exit on the return.

**SALT WATER WASH (RATING 1A II):** Turn right, heading down Salt Water Wash to the north. It's easy walking as you pass through the Kaibab and Toroweap Limestone layers. At the top of the Coconino look for cairns, which mark a well maintained trail on the left. The path follows the hillside on the left through the Coconino and Hermit layers all the way to the river at Browns Cove. When ready, return the way you came.

**12.2-MILE WASH (RATING 3A II):** Cross Salt Water Wash and continue hiking to the west. The next major drainage you encounter will be 12.2-Mile Wash (GPS Point - UTM: 12S 439416 mE, 4061993 mN, WGS84 Datum). Enter the wash and turn right (north) heading downcanyon. It's easy hiking for the next 2 miles through the Kaibab and Toroweap Limestone layers until you reach the Coconino Sandstone and a section where large boulders have fallen into the canyon from above. Choose the easiest route through the boulders to arrive at a large chute and pour-off that can be downclimbed with a little exposure. Just below, you'll arrive at a series of three ledges in the Hermit Shale that are best rappelled since the rock is extremely loose, crumbly and unsuitable for climbing. The best strategy is to rig for a 100-foot rappel using one of the large boulders at the top

of the ledges as an anchor. Once down, it's a simple matter of picking your way through the boulder field below the remainder of the way to the Colorado River. The loop can be completed by hiking upriver a quarter mile to the mouth of Salt Water Wash. Pick up a well marked trail on the right of the canyon bottom (facing upcanyon), which will take you up through the Hermit and Coconino layers. When the trail ends, simply hike up the wash through the Toroweap and Kaibab layers remaining right at any junctions to arrive at the spot where you had crossed the canyon earlier. Climb up out of the canyon to the left (east) and hike cross-country the remainder of the way back to your vehicle.

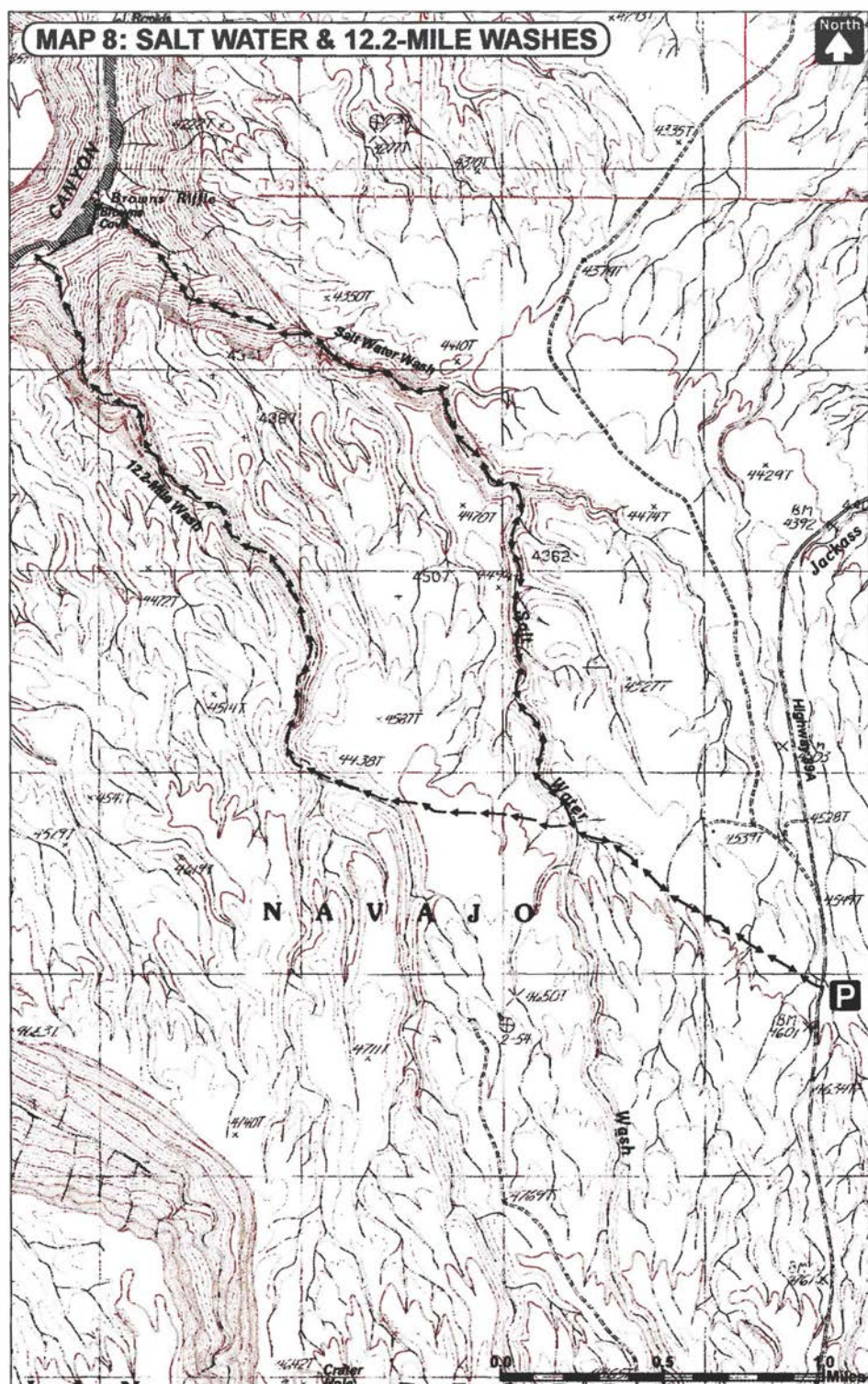
## *AUTHOR'S RATING ★★*

There is nothing terribly remarkable about these canyons and no narrow sections, but they are nice enough routes to the Colorado River and you'll likely have the place to yourself.

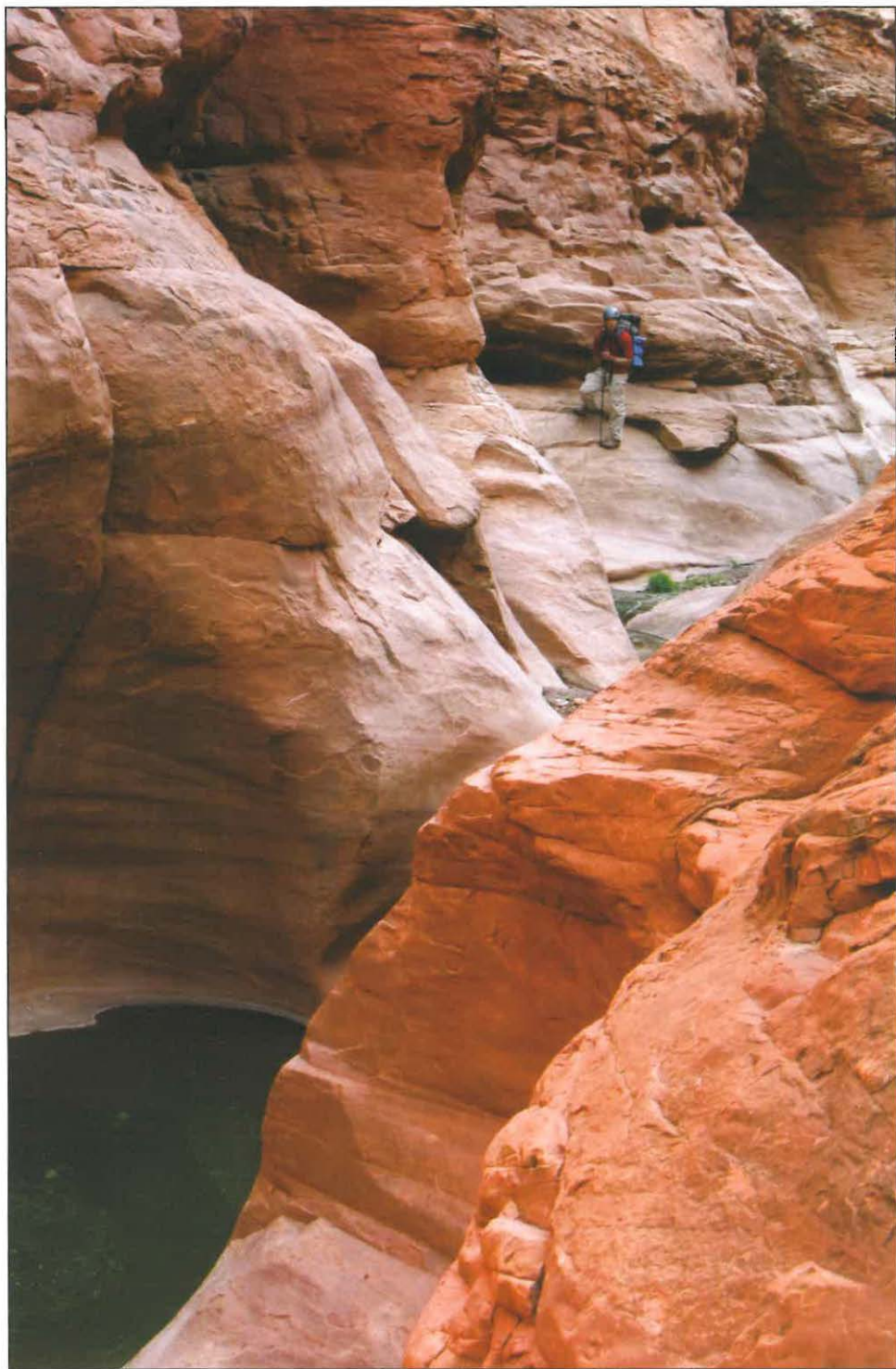


*Route along the river between 12.2-Mile Wash and Salt Water Wash*









*Aaron Locander in the Supai narrows of Tanner Wash*

## 9: Tanner Wash

**OVERVIEW:** A long slog down a side canyon of the Colorado on the Navajo Nation side of Marble Canyon to some wonderful Supai Sandstone narrows. The trip may be done as a down-and-back hike, as a long loop trip exiting Hot Na Na Wash, or as a through trip using a packraft to exit at Rider Canyon. The latter requires a car spot.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South and North Rims. Use areas: SH9, AB9

**REQUIRED GEAR: Down-and-back or Loop:** No special gear required. **Through Trip:** 150' rope, 20' webbing, 1 rap ring, harness, descender, helmet, carabiners, drybag, packraft, paddle, personal floatation device and a wetsuit (for the raft trip).

**SPECIAL CONSIDERATIONS:** Water is available in the lower part of Tanner Canyon and at the Colorado River. River travel is required in order to complete this as a through trip. This hike requires a permit from the Navajo Parks and Recreation Department. A permit is also required from the National Park Service if completing this hike as an overnight trip.



**ACA Rating:** 2–3B R IV

**Distance:** 14.5 – 19.0 miles

**Physical Difficulty:** Very Strenuous

**Elevation:** 5,180 – 3,020 ft.

**Time Needed:** 1 – 2 days

**Best Time of Year:** Fall, Winter, Spring

**Vehicle:** Passenger Car

**Car Shuttle:** Yes — if exiting at Rider

**Maps:** USGS Tanner Well Bitter Springs, Emmett Wash 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

**TANNER WASH:** From Flagstaff, drive north on Highway 89 to the small Navajo Village of Bitter Springs. One option is to park between mileposts 521 and 522 where a small bridge crosses Tanner Wash. Park at a pull off on the south east side of the bridge (or if the weather is dry, park under the bridge). To save a mile of walking, you could also park at a pull off at the junction of Highways 89 and 89A.

**OPTIONAL CAR SPOT (Rider Canyon):** From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake and follow it across the Navajo Bridge. Turn left on an unmarked dirt road just past milepost 557.

Zero the trip meter on your car and head south on this dirt road. In 2.1 miles, bear left at a road junction and cattle guard, and stay left again at the 3.3-mile point. At 4.6 miles, you'll reach the Kram Ranch; turn right and pass through a fence. The road heads south for about a half mile then bends east.

At 5.6 miles, you'll reach another fork, stay left and continue driving. You'll pass a few signs in this section urging you to protect the Brady Pincushion Cactus, which grows along the rim in this part of Marble Canyon (please keep your vehicle on established roads). At 11.9 miles from the highway, bear left at a junction following a faded brown hiker's sign. At 12.2 miles, follow the hiker's sign right. This section of the road has a few rough, rocky sections as it winds its way right to the canyon's edge at the 14.2-mile point.



## TRIP DESCRIPTION

From the Highway 89 bridge, simply begin slogging your way down the wide, sandy wash that makes up the right fork of Tanner. The wash bends right and heads past a water tank and a few houses before entering a somewhat deeper canyon. If entering from the Highway 89/89A junction, head due west to pick up a cow trail and old road to enter the left fork of Tanner Wash as shown on the map.

Whichever entry is chosen, the hiking is flat and easy at first, though the scenery isn't terribly interesting and there is quite a bit of trash in the canyon, including several junked cars, many plastic containers and, for some reason, dozens and dozens of sports balls. As the drainage deepens, the boulders that litter the canyon floor become larger, though none present any significant difficulty.

After walking about 6 miles or so, the canyon enters a layer of Coconino Sandstone, becomes narrower, and begins dropping more steeply in a series of stair-stepped dryfalls, each of which ends in a pool. At the top of the first of these drops, look to the left to identify a few small cairns that mark the Coconino bypass. Proceeding downcanyon, the dryfalls and pools may all be bypassed on the left except for the last pool. Just beyond this point, the Coconino ends in a sheer dryfall of perhaps 150 feet (a rough estimate as seen from the bypass).

When you reach this point, back up and retrace your steps to the bypass. Assuming you've missed it on the way in, it is the first possible location that allows access to the slope above the Coconino layer. The route is covered with loose rocks and requires care to negotiate. There are a few small cairns along the way, which eventually disappear after about 0.5 miles at a large talus slope. From where the cairns end, look downcanyon along the slope to identify a point where the crumbly breakdown has formed a fin that touches the top of the Coconino layer. Although it's not pretty, this is the route that allows entry back down to the canyon bottom. The best way to get to this fin is to climb high up the slope to the left (to get around a particularly steep, loose and treacherous section), then straight down again. Head straight down at the fin by carefully picking your way down the crumbly, loose rock to eventually regain the canyon floor.

Below the bypass, the slog continues except that you may find a few more pools and muddy sections. Eventually, the canyon cuts into the Supai Sandstone and its character changes abruptly as you enter a long section of very pretty and sculpted reddish narrows interspersed with pools. Depending on water levels, good climbers may be able to keep their feet dry by climbing around on one side or the other; less experienced climbers might find themselves faced with some deep wading or even a short swim. The canyon becomes deeper and more entrenched until it makes a bend to the right to end at drop into the river at Sheer Wall Rapid.

**DOWN-AND-BACK:** This marks the turnaround point for those without ropes and packrafts. When ready, return the way you came.

**LOOP WITH HOT NA NA:** Retrace your steps to the top of the Supai Sandstone and exit the canyon to the south (left). Follow the Supai rim, which parallels the river to the south, to eventually arrive at Hot Na Na Wash at GPS Point - UTM: 12S 434486 mE, 4059351 mN, WGS84 Datum. Head upcanyon, reversing the route described in the next trip description.

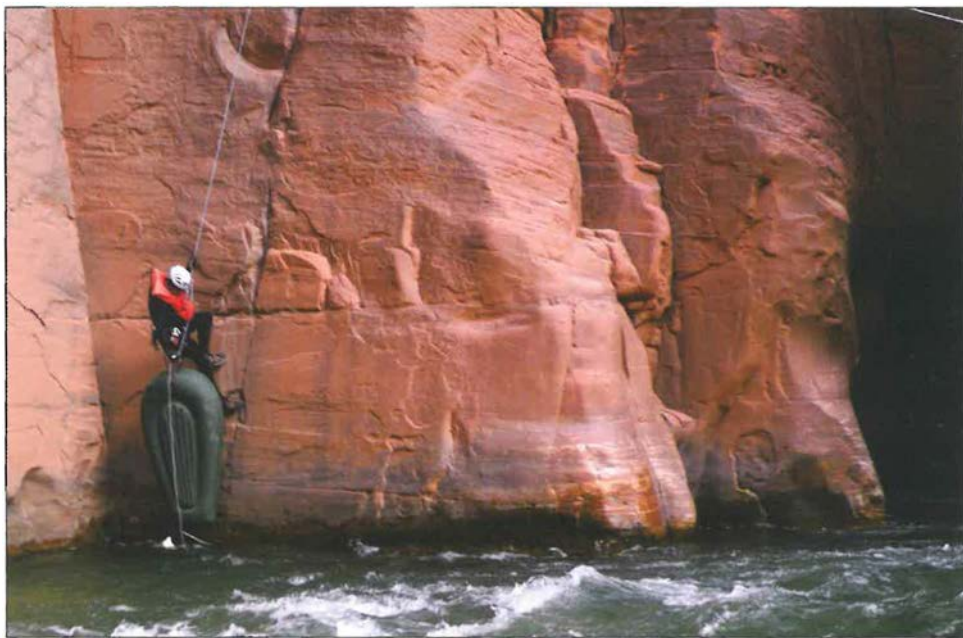
**RIDER CANYON EXIT:** Those planning to exit at Rider Canyon will want to put on wetsuits, helmets and PFDs, blow up their boats and formulate a plan. There is no beach at the mouth of Tanner so you'll need to rappel with boat in hand until you are just above the water (preferably at a spot where the river is calm). The next step is to put the boat in the water, your pack in the boat, then lower yourself into the boat. Before detaching yourself from the rope, get situated and get out your paddles since the next step is to run the rapids. Sound easy? Unsurprisingly, it actually takes some coordination.

We built a rock pile anchor on a ledge on the right, which allowed us to rappel into a V-shaped notch where the river was calm. There is also a large circular bowl at the mouth of the canyon that is big and calm enough to fit several rafts. We did not choose the latter entry since we were concerned that it would be difficult to exit the bowl due to the current. Subsequent experimentation showed that while it took some paddling effort, our concerns were unfounded. This bowl might be a better option than rappelling into the river current.

When ready, launch into the current, which is swift and rather rough by packrafting standards. The river becomes calm below the rapids and there are some take out points not far downriver on the left that will allow you to empty your boat should it become swamped in the rapid. Float 2.5 miles to Rider Canyon, making sure to beach your raft at the mouth of the canyon before entering House Rock Rapid. Exit Rider to the rim and trailhead reversing the directions in Rider Canyon trip description.

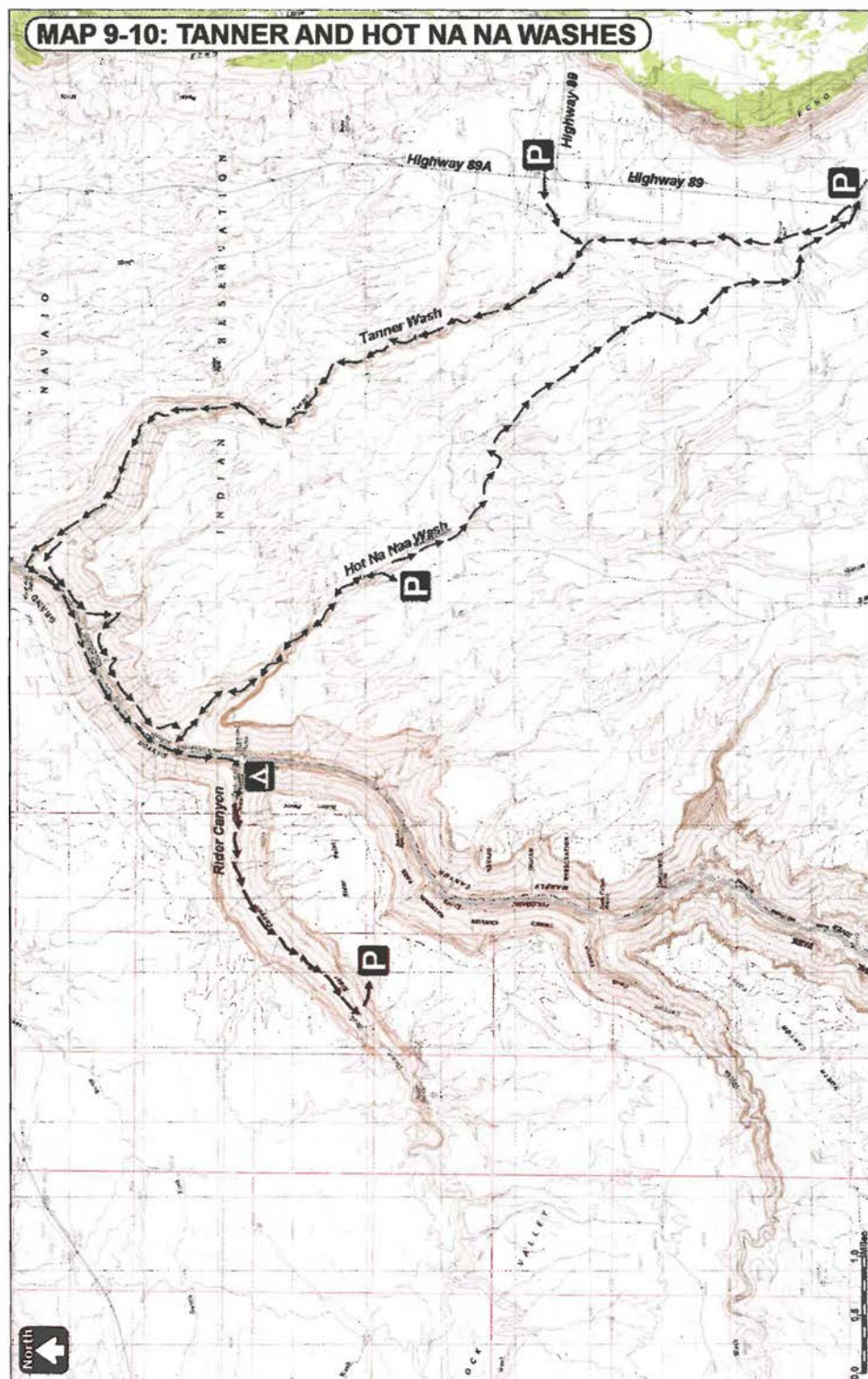
#### **AUTHOR'S RATING ★★★**

Tanner Wash took me three separate trips to complete. The first two ended at the crumbly Coconino bypass, the first due to heat and dehydration and the second due to a sudden and violent snowstorm. The third time was a charm however, and we were able to complete the canyon exiting at Rider in about 7 hours (your time may vary).



*Rappelling into Sheer Wall Rapids (Photo by Aaron Locander)*

MAP 9-10: TANNER AND HOT NA NA WASHES





## 10: Hot Na Na (aka: Hanaa Ninadzidzahl) Wash

**OVERVIEW:** A hike down a side canyon of the Colorado on the Navajo Nation side of Marble Canyon to a short set of Supai Sandstone narrows. The trip may be done as a down-and-back hike, as part of a loop hike with Tanner Wash or as a through trip using a packraft to float and exit at Rider Canyon.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use areas: SH9, AB9

**REQUIRED GEAR:** If descending all the way to the river, you'll need 2x150' ropes (or 1x150' rope and 2x50' ropes if fixing ropes and jugging back out), 30' webbing, 3 rap rings, harness, descender, helmet, carabiners, and drybag. Ascending gear is required if completing the hike as a down-and-back trip. A packraft, paddle, personal floatation device and possibly a wetsuit (for the raft trip) are required if exiting at Rider Canyon.

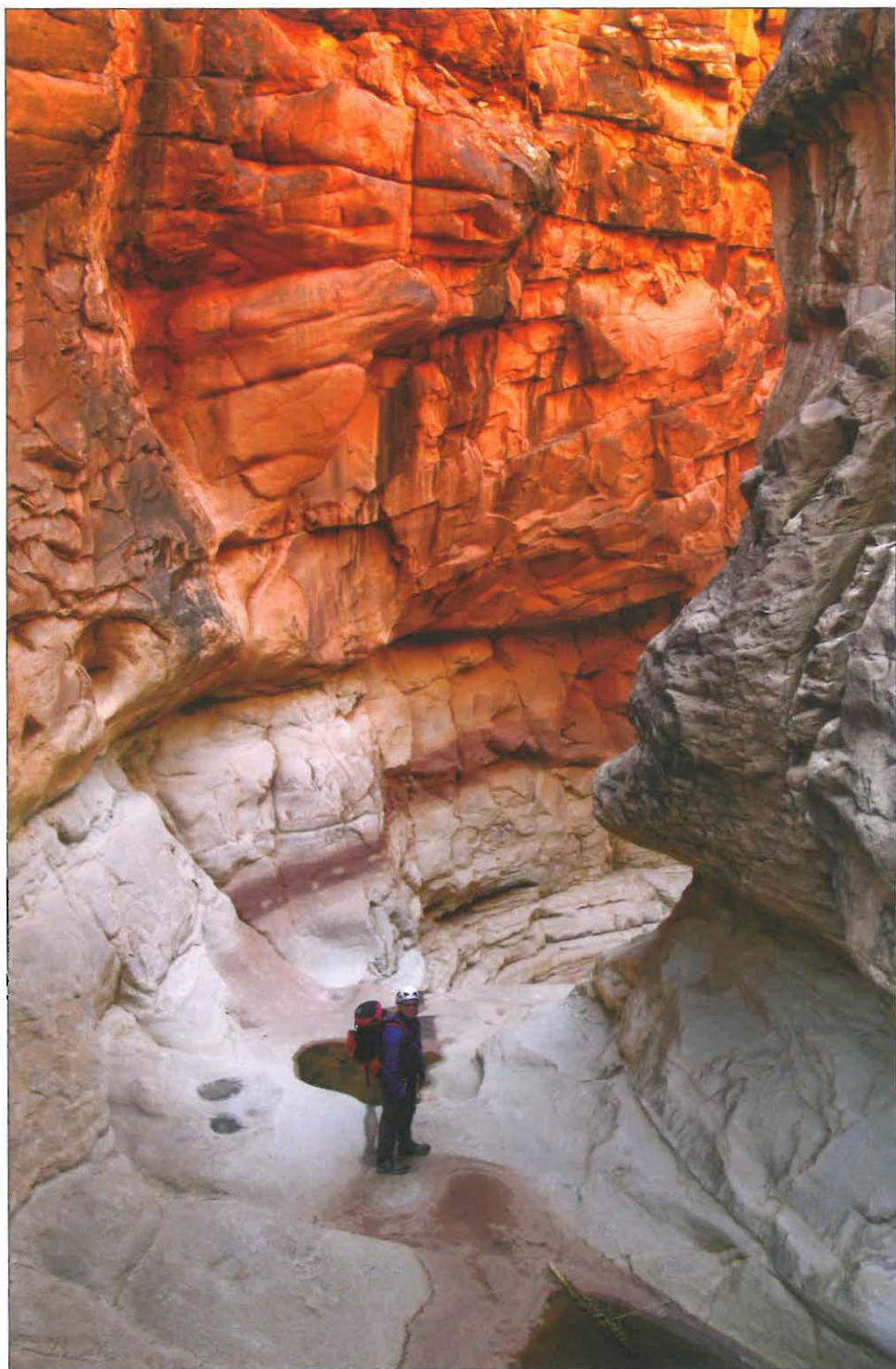
**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. River travel is required in order to complete this as a through trip. This hike requires a permit from the Navajo Parks and Recreation Department. A permit is also required from the National Park Service if completing this hike as an overnight trip.



<b>ACA Rating:</b> 3A III–IV	<b>Distance:</b> 7.3 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 4,930 – 3,010 ft.
<b>Time Needed:</b> 1 – 2 days	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> Yes — if exiting at Rider
<b>Maps:</b> USGS Bitter Springs 7.5	<b>Navigation:</b> Moderate

### DRIVING DIRECTIONS

**HOT NA NA WASH:** From Flagstaff, drive north on Highway 89 and turn left between mileposts 520 and 521 on a well maintained, but unsigned dirt road which begins by traveling up and over a hill (zero your odometer). Drive 0.9 miles to a fork in the road ignoring any minor paths that branch from the main track. Stay right at the fork. Turn right again at the 1.2-mile point and right again a very short distance later to soon climb up onto Small Ridge. At the 1.6-mile point, there is a 3-way fork; stay left, then at mile 3.8, stay left where the road forks once again, remaining on the main track. At the 4.5-mile point, you'll pass a corral that is located off to the left. The road forks at mile points 5.5 and 5.8; stay right at both and right again a short distance later. Turn left at the 6.0-mile point then right at the 6.2-mile point to drop down and cross a dry wash. Turn left at the 6.6-mile point, then right at mile point 7.4 onto a fairly faint and seldom used track. Follow this road to the 9.0-mile point and park at GPS Point - UTM: 12S 436447 mE, 4056481 mN, WGS84 Datum. Hot Na Na is visible just to the right (north) of this parking spot.



*The short narrows of Hot Na Na Wash*

**OPTIONAL CAR SPOT (Rider Canyon):** From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake and follow it across the Navajo Bridge. Turn left on an unmarked dirt road just past milepost 557.

Zero the trip meter on your car and head south on this dirt road. In 2.1 miles, bear left at a road junction and cattle guard; at 3.3 miles stay left again. At 4.6 miles you'll reach the Kram Ranch; turn right and pass through a fence. The road travels south for about a half mile then bends east.

At 5.6 miles you'll reach another fork; stay left and continue driving. You'll pass a few signs in this section urging you to protect the Brady Pincushion Cactus, which grows along the rim in this part of Marble Canyon (please keep your vehicle on established roads). At 11.9 miles from the highway, bear left at a junction following a faded brown hiker's sign. At 12.2 miles, follow the hiker's sign right. This section of the road has a few rough, rocky sections as it winds its way right to the canyon's edge at the 14.2-mile point.

### **TRIP DESCRIPTION**

From the car park, walk to the northeast a short distance to locate a safe route down into Hot Na Na Wash. Heading downcanyon the hiking is fairly routine as you proceed through the Kaibab and Toroweap layers. Travel becomes somewhat more difficult as you enter the Coconino, with some scrambling required to get around and through large boulders that have fallen into the canyon from above. After a few hours of hiking, the canyon eventually arrives at the head of a short Supai Sandstone slot at a point near the river. Those looking to descend through the narrows will either need to fix ropes (and jug back out on the return) or be in possession of a packraft that will allow you to float downriver to exit at Rider Canyon.

Continuing to the river, there is a small drop-off at the head of the Supai that can be bypassed on the left to climb down just above a second small pour-off and pool. Good climbers may be able to get down this next drop without rope, but it's probably safer to rig for a rappel using a rock pile. After passing through a short hallway, you'll encounter a 120-foot vertical rappel that can be rigged using a sling around some rocks in a crack in canyon right to arrive at a shelf above the beach. Follow the shelf down to its leftmost corner to sling a boulder for a 20-foot rappel. Those looking to camp will find some flat spots on the sand on the southern side of the beach.

**DOWN-AND-BACK:** This marks the turnaround point. When ready, return the way you came, jugging ropes and retrieving your gear on the way out.

**RIDER CANYON EXIT:** Those planning to exit at Rider Canyon will want to put on wetsuits, helmets and PFDs, and blow up their boats. Rider Canyon lies about 0.5 miles down the Colorado and is the first drainage on the right of any consequence. Be sure to beach your raft at the mouth of Rider before entering House Rock Rapid. Exit Rider to the rim and trailhead reversing the directions found in the Rider Canyon trip description.

### **AUTHOR'S RATING ★★**

Rich Rudow and I did this as a down-and-back trip in about 5.5 hours fixing ropes in the lower Supai and jugging out on the return. We surprised some river rafters at the beach who had never encountered hikers at that location.





*The big rappel in Upper Rider Canyon (Photo by Rich Rudow)*

# 11: Rider Canyon (aka: House Rock Wash)

**OVERVIEW:** Rider is a very scenic canyon and features some nice Supai sandstone narrows. Two entry routes are described: 1) the traditional hiker's entrance, and 2) a technical canyoneering route featuring one long rappel. An alternate exit is also described allowing a loop to be completed.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AB9

**REQUIRED GEAR:** **Upper Rider:** 2x200' ropes, 40' webbing, 1 rap ring, harness, descender, helmet, and carabiners. No special gear is needed for **Lower Rider**.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. The canyon can be rather muddy after recent rains.



<b>ACA Rating:</b> See Trip Description	<b>Distances:</b> 7.0 – 9.5 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 4,600 – 2,990 ft.
<b>Time Needed:</b> 5 – 8+ hours	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> High Clearance Vehicle	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Emmett Wash Bitter Springs 7.5	<b>Navigation:</b> Moderate

## DRIVING DIRECTIONS

Follow these directions closely to find Rider Canyon (ignore any minor dirt tracks as you go). From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake and follow it across the Navajo Bridge. Turn left on an unmarked dirt road between mileposts 557–558.

Zero the trip meter on your car and head south on this dirt road. In 2.1 miles, bear left at a road junction and cattle guard; at 3.3 miles stay left again. At 4.6 miles, you'll reach the Kram Ranch, turn right and pass through a fence. The road travels south for about a half mile then bends east.

At 5.6 miles, you'll reach another fork, stay left and continue driving. You'll pass a few signs in this section urging you to protect the Brady Pincushion Cactus, which grows along the rim in this part of Marble Canyon (please keep your vehicle on established roads). At 11.9 miles from the highway, bear left at a junction following a faded brown hiker's sign. At 12.2 miles, follow the hiker's sign right. This section of the road has a few rough, rocky sections as it winds its way right to the canyon's edge at the 14.2-mile point.

## TRIP DESCRIPTION

**UPPER RIDER (RATING 3B III):** From the car park, walk back along the road you just drove in on for 15 minutes; leave the road to the right and travel cross-country in a westerly direction, making a broad arc to the south (see map). The idea is to parallel House Rock Wash at a sufficient distance to avoid the deeper sections of the many gullies that run to the north into the canyon. Keep your eyes open for the endangered Brady pincushion cactus to avoid stepping on them. The cactus is semi-spherical with one or more stems, each up to 2.4 inches tall and 2 inches in diameter. Spines are white or yellowish-tan,

flowers are straw-yellow and appear in the spring.

After about 3 miles, look for a large cairn and marker placed by the U.S. General Land Office Survey (GPS Point - UTM: 12S 428234 mE, 4055503 mN, WGS84 Datum). From the marker, walk to the northwest into a minor tributary of Rider Canyon. At the confluence, walk up Rider a short distance to a break in the Kaibab limestone cliff that allows entry into the wash.

Turn right and proceed down House Rock Wash. The walking is easy as the canyon walls soon begin to deepen around you. There are a few minor downclimbs to bypass boulders that have fallen into the canyon, but nothing that presents difficulty. After passing through an all-too-short section of nice Coconino narrows, you'll arrive at a pour-off that may be bypassed on the left. Just beyond lies the one rappel in the canyon, a dramatic 170-foot drop using one of the large blocks on canyon right as an anchor. After pulling the rope, remove your harness and continue boulder hopping downcanyon for about a mile to arrive at the traditional entry/exit point for hikers, which comes in on the right and is marked by cairns. Following this route will bring you right back to the rim and your vehicle.

**LOWER RIDER (RATING 1B III):** From the car park, look to the left while facing the canyon to identify a brown hiker's sign that points the way to a crack in the rock which serves as an entry into the canyon. The trail is steep, but easy to follow as it descends through the Kaibab limestone (passing beneath two large boulders) to arrive at the top of a talus slope. The trail becomes somewhat less defined as it splits into multiple use tracks, all of which lead to the creekbed. Choose the most prominent track and watch your footing as you descend the gravel-strewn footpath.

Once in the stream bed make sure there are some cairns in place that mark the exit (if doing a down-and-back hike); otherwise you could walk right by it. When ready, turn right and walk downcanyon. It's easy and pleasant hiking with little climbing required. You'll make good time, particularly on the many slickrock sidewalks along the way.

Eventually, you'll reach an 8-foot dryfall. You could either attempt to jump down (sometimes there is a log in place to assist), but it might be better to look for the fairly well defined trail on the right that leads around this obstacle (though you have to stay up on the side of the canyon for quite a ways before reaching a break that will allow you back into the canyon bottom). Farther downcanyon, you'll reach a chockstone and drop-off into a narrow pool. Backtrack a short ways from this section and look for a cairn and route up and around on canyon left (the left side of the canyon when facing downstream).

In the lower part of the drainage, you'll pass through some very nice Supai narrows. There are several pour-offs, pools, and potholes, but you'll be able to bypass all of these obstacles by climbing around on one side of the canyon or the other. Just before reaching the river, you'll reach a large pool that may require you to do a thigh deep wade for 20 feet or so if it is full. I suggest removing your shoes and socks to keep them dry through this section. The canyon then opens up and it's a short walk to the Colorado River and House Rock Rapid. There are some large flat rocks next to the river that make for a nice spot for a break. When ready, return the way you came or continue along the route described below to make a loop.



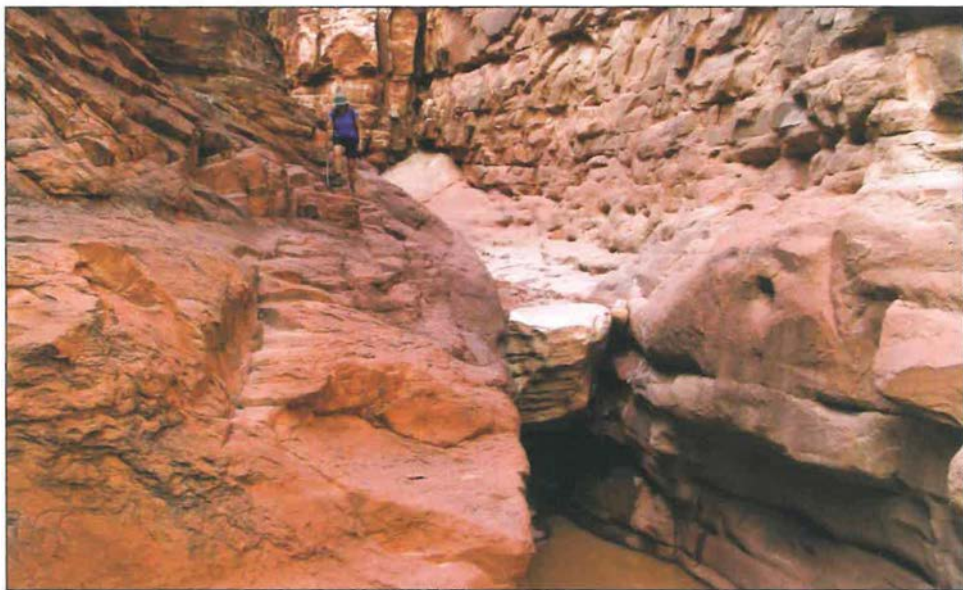
**OPTIONAL EXIT:** Be aware that this is a rugged route and should only be attempted by strong hikers with good route-finding skills familiar with off-trail Grand Canyon hiking. From the mouth of Rider Canyon, follow the slope downriver heading south. Though no trail exists and the hiking is slow, the route is better than most of the river hiking in the Grand Canyon and there are sections of bighorn sheep trail that make the going even easier.

After 1.6 miles, you'll reach a large rock that splits the river forming the Boulder Narrows and another 0.5 miles farther will bring you to a route at river-mile 19 that leads out of the canyon (GPS Point - UTM: 12S 432166 mE, 4056330 mN, WGS84 Datum). Walk straight up this steep, boulder filled ravine, which is loose and crumbly in the upper sections.

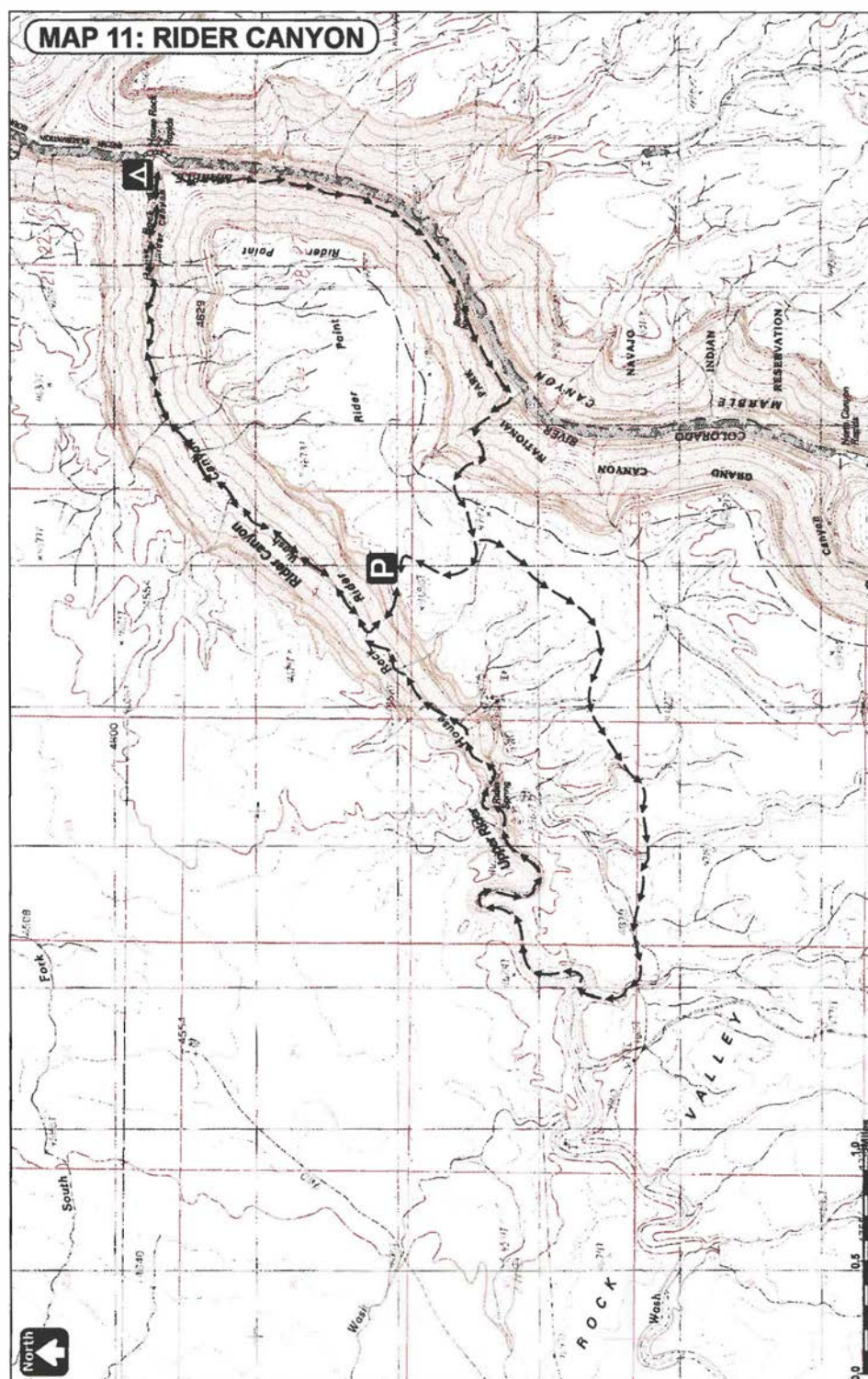
Once you've gained the top of the Supai, walk downriver on top of this layer for ¼ mile until you see a large slide up to the base of the Coconino cliff. Choose the route of least resistance climbing up the sheer, rocky slope. At the base of the Coconino move left to locate a hidden crack system that allows access through the cliff band. Some climbing with minor exposure is required to ascend the lower levels of the Coconino. As you gain elevation, you'll see a large section of wall that has broken off from the main cliff face. Walk to the left and climb the steep slope between this slab and the cliff along a faint use trail. At the top of the slope, head slightly to the left to ascend the remaining 100 vertical feet to the rim. From the rim, hike due west to pick up the road to the Rider Canyon trailhead; turn right and follow it the remaining distance to its end and your vehicle.

## ***AUTHOR'S RATING ★★☆☆***

This is one of the best hikes in the Marble Canyon area. Be aware, however, that some mud in the canyon that looks dry may in fact be soft and squishy. Rich Rudow and Chris Forsyth were the first to explore the technical upper Rider route. At a later date, Rich and I completed the technical trip to the river, then out the 19-mile route at a fast pace in 8 hours (be aware that some groups will need more time, perhaps much more).



*Rider Canyon*



## 12: North Canyon

**OVERVIEW:** A gorge in the Marble Canyon area with one rappel and a short section of pretty narrows. The hike may be completed as a down-and-back trip to the Colorado River, fixing rope, and ascending it on the return or as a loop hike traveling upriver to a break at river-mile 19.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AB9

**REQUIRED GEAR:** 1x150' rope, 15' webbing, 1 rap ring, harness, descender, helmet, carabiners, and drybag. Ascending gear is required if completing the hike as a down-and-back trip.

**SPECIAL CONSIDERATIONS:** Water is available in lower North Canyon and at the Colorado River. Good rope ascending skills are required to complete this canyon as a down-and-back trip.



<b>ACA Rating:</b> 3A IV	<b>Distance:</b> 13.5 – 19.1 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 4,880 – 2,990 ft.
<b>Time Needed:</b> 8 – 12 hours	<b>Best Time of Year:</b> Fall, Spring
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS North Canyon Point, Emmett Wash 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake and follow it across the Navajo Bridge. Turn left on an unmarked dirt road with a chain link gate between mileposts 557 and 558. Zero the trip meter on your car and travel south on this dirt road through the gate. In 2.1 miles, bear left at a road junction and cattle guard; at 3.3 miles stay left again. At 4.6 miles, you'll reach the Kram Ranch; turn right and pass through a fence. The road heads south for about a half mile then bends east. At 5.6 miles, you'll reach another fork; stay left and continue driving. You'll pass a few signs in this section urging you to protect the Brady Pincushion Cactus, which grows along the rim in this part of Marble Canyon (please keep your vehicle on established roads). At the 7.6-mile point, pull to the side of the road at an unremarkable bare patch of ground at: GPS Point - UTM: 12S 425699 mE 4052556 mN, WGS84 Datum.

### TRIP DESCRIPTION

From the road, walk southwest through the desert scrub and look for a minor drainage that will enable you to get down into North Canyon. Once in the canyon bottom, it's a good idea for those doing a down-and-back trip to make a cairn so that you know where to come out again on the return trip. Begin walking down the wide gravel strewn wash. It's easy, flat walking at first as you pass between moderately tall cliffs. As the canyon deepens, the drainage becomes wider and filled with large boulders. Progress becomes slower due to the climbing and route-finding required in navigating through the boulder field.

After several hours of hiking, the dark red Supai layer appears underfoot and the walking



becomes easier. Soon the drainage begins descending steeply through the Supai. There are several pour-offs that can be bypassed on one side or the other, then a larger pour-off that can be bypassed using a breakdown pile on canyon left (the left side of the canyon when facing downstream). Just beyond this is a short slide/climb down into a bowl (make sure you can get back out again before committing your party) followed by a sheer drop of 70 feet. The drop can be rigged by slinging a large boulder conveniently located in the bowl above the drop. Those planning to jug out on the return trip should leave the rope fixed in place.

Once down, you may remove your harness. A stroll down a hallway will bring you to another drop-off that may be bypassed on canyon right. This is followed by a pretty chute that ends in a large, circular pool requiring a deep wade or short swim. A rafter trail appears below this point on the left and may be followed downcanyon to another bypass on the left, and on to the Colorado River, which features a sandy beach and view of the rapids.

**EXIT OPTION 1:** Those who fixed a rope at the drop can retrace their steps, ascending the rope on the return trip.

**EXIT OPTION 2:** This exit involves following the river upstream (north) to a break in the cliffs at river-mile 19, which allows access to the rim. Be aware that this is a somewhat rugged route and should only be attempted by strong hikers with good route-finding skills familiar with off-trail Grand Canyon hiking. From the mouth of North Canyon, follow the slope upriver heading north. Though no trail exists and the hiking is slow, the route is better than most of the river hiking in the Grand Canyon and there are sections of bighorn sheep trail that make the going even easier. At one location the bank disappears where the rocky cliff pushes into the Colorado. If river levels are low, it's possible to wade through the water to regain the bank; fortunately, this section is protected and has no current. If river levels are very high, it might be safer to retreat back into North Canyon where a high route that bypasses this part begins. *Note: I have not done this latter route, but George Steck describes it in his book 'Hiking Grand Canyon Loops'.*

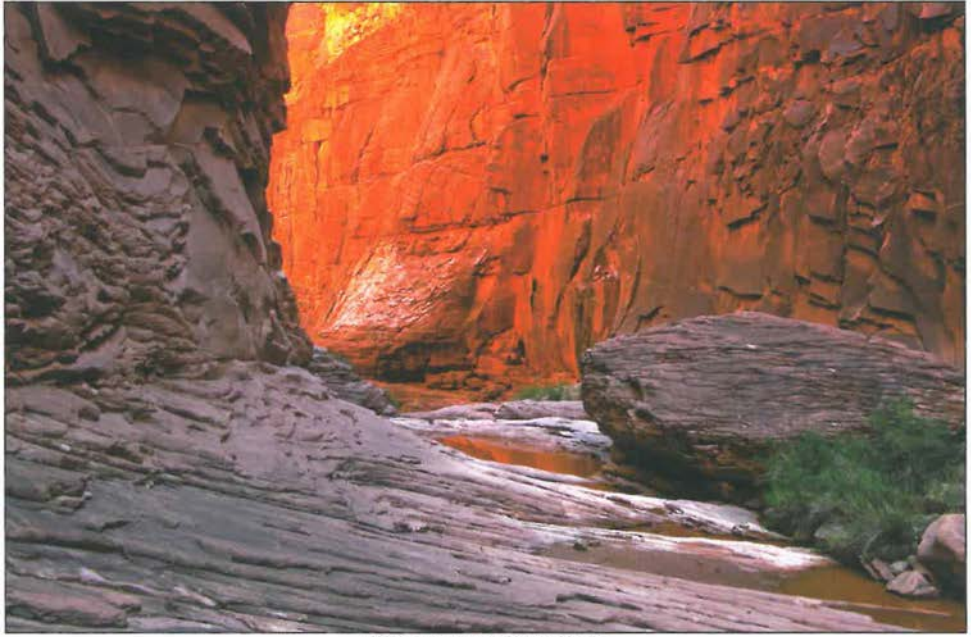
After 1.6 miles, you'll reach the 19-mile rim to river route that leads out of the canyon (GPS Point - UTM: 12S 432166 mE, 4056330 mN, WGS84 Datum). Walk straight up this steep, boulder filled ravine, which is loose and crumbly in the upper sections.

Once you've gained the top of the Supai, walk downriver on top of this layer ¼ mile until you see a large slide up to the base of the Coconino cliff. Choose the route of least resistance climbing up the sheer, rocky slope. At the base of the Coconino move left to locate a hidden crack system that allows access through the cliff band. Some climbing with minor exposure is required to ascend the lower levels of the Coconino. As you gain elevation, you'll see a large section of wall that has broken off from the main cliff face. Walk to the left and climb the steep slope between this slab and the cliff along a faint use trail. At the top of the slope, head slightly to the left to ascend the remaining 100 vertical feet to the rim. From the rim, hike due east to pick up the road, which can be followed left for 4.5 miles back to your vehicle.

**EXIT OPTION 3:** A longer loop can be made by hiking upriver from the mouth of the 19-mile rim to river route another 2.1 miles to the mouth of Rider Canyon (see previous hike description). Hike up Rider for 3.5 miles to the hikers trail on the south side of the drainage that leads up and out of the canyon. Unless you spotted a car, a 5.3 mile road walk will be required to get back to your vehicle at the parking spot for North Canyon. This loop is probably better done as an overnight hike with one night spent at the river.

**AUTHOR'S RATING ★★★**

Although I'd written about North Canyon previously in *Arizona Technical Canyoneering* as a down-and-back trip, I figured those canyoneers that do not appreciate ascending ropes (in other words ... all canyoneers) might appreciate an option for a loop hike.

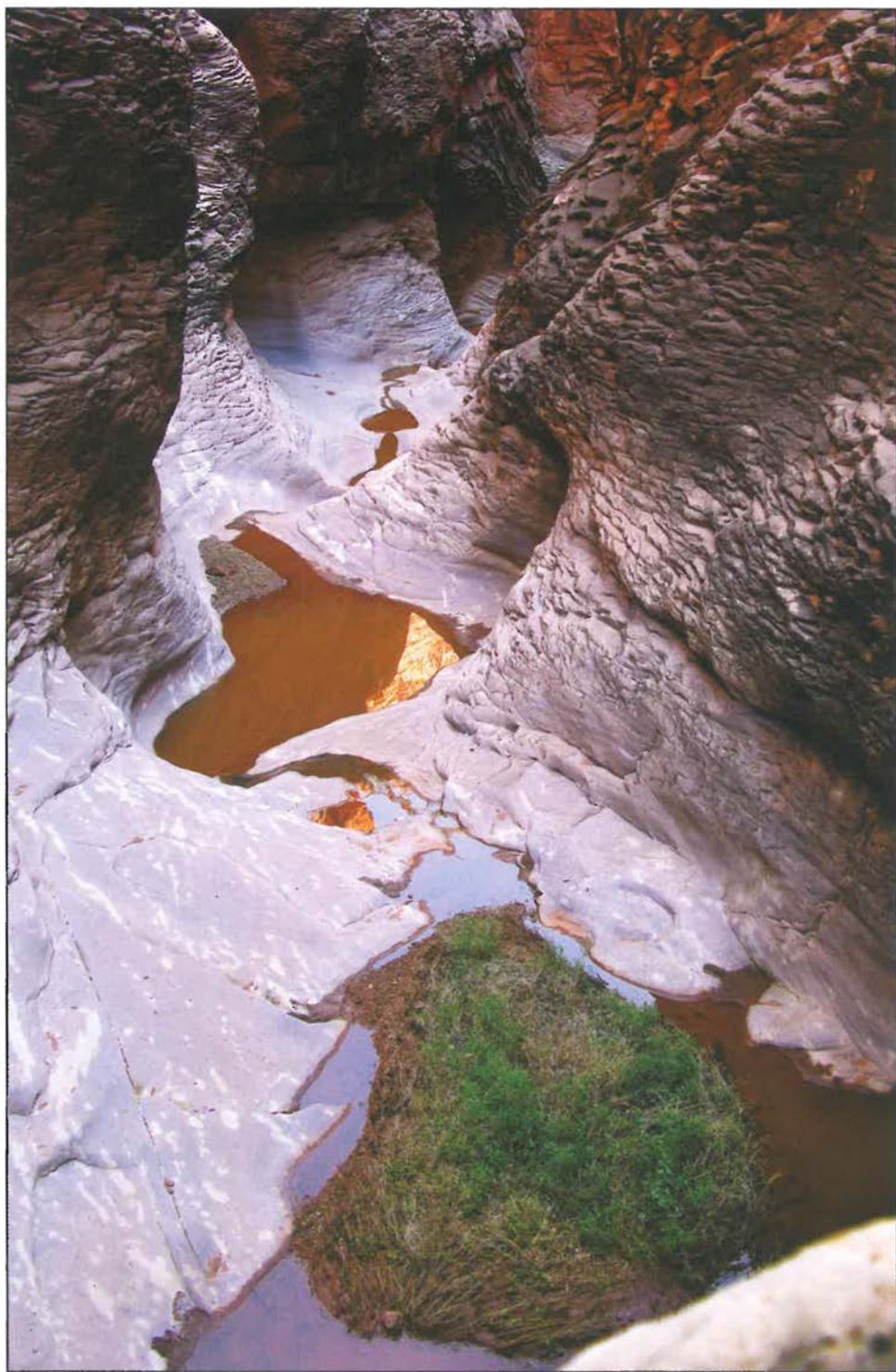


*North Canyon: Supai Sandstone*



*North Canyon: Chute and pool*

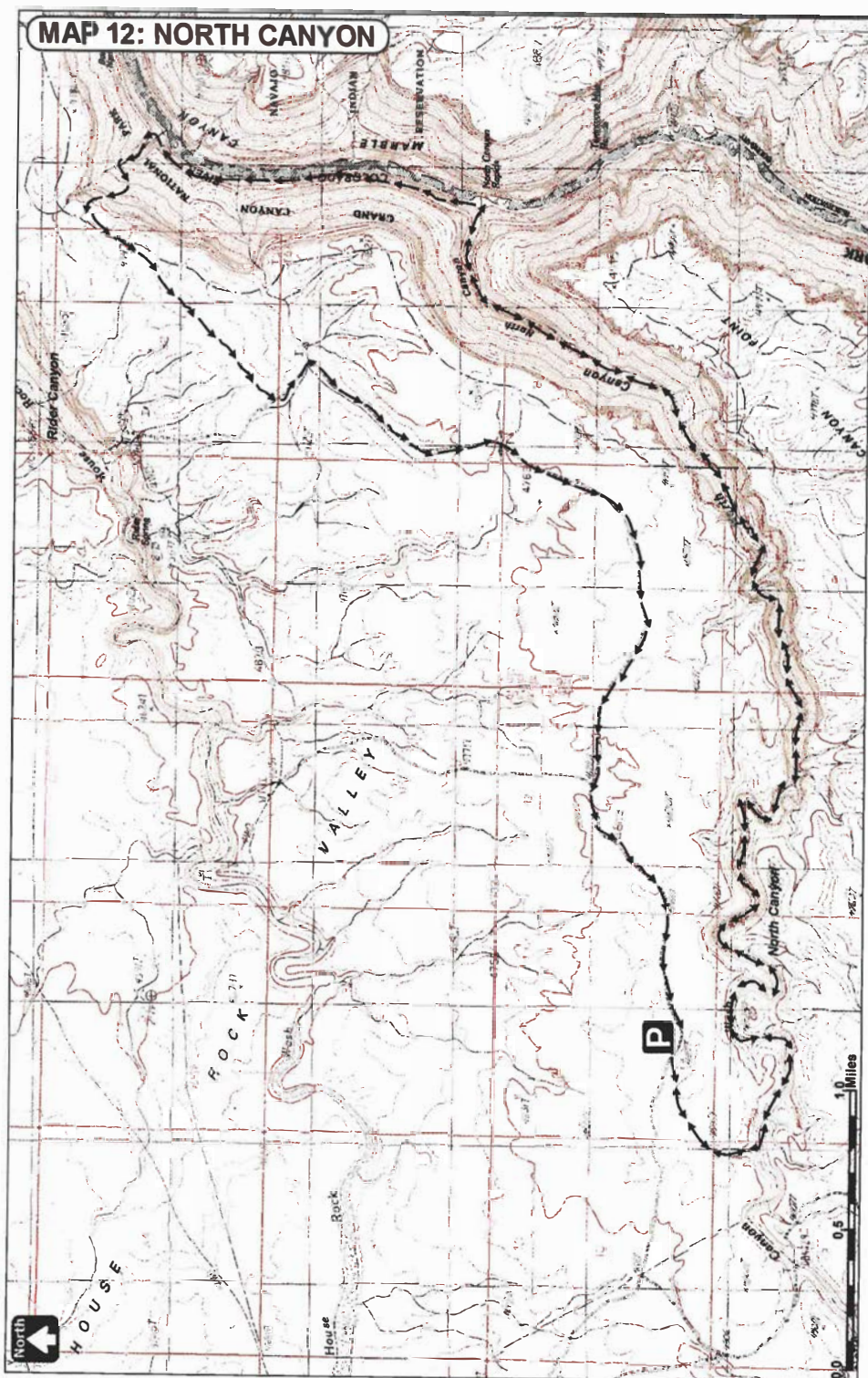


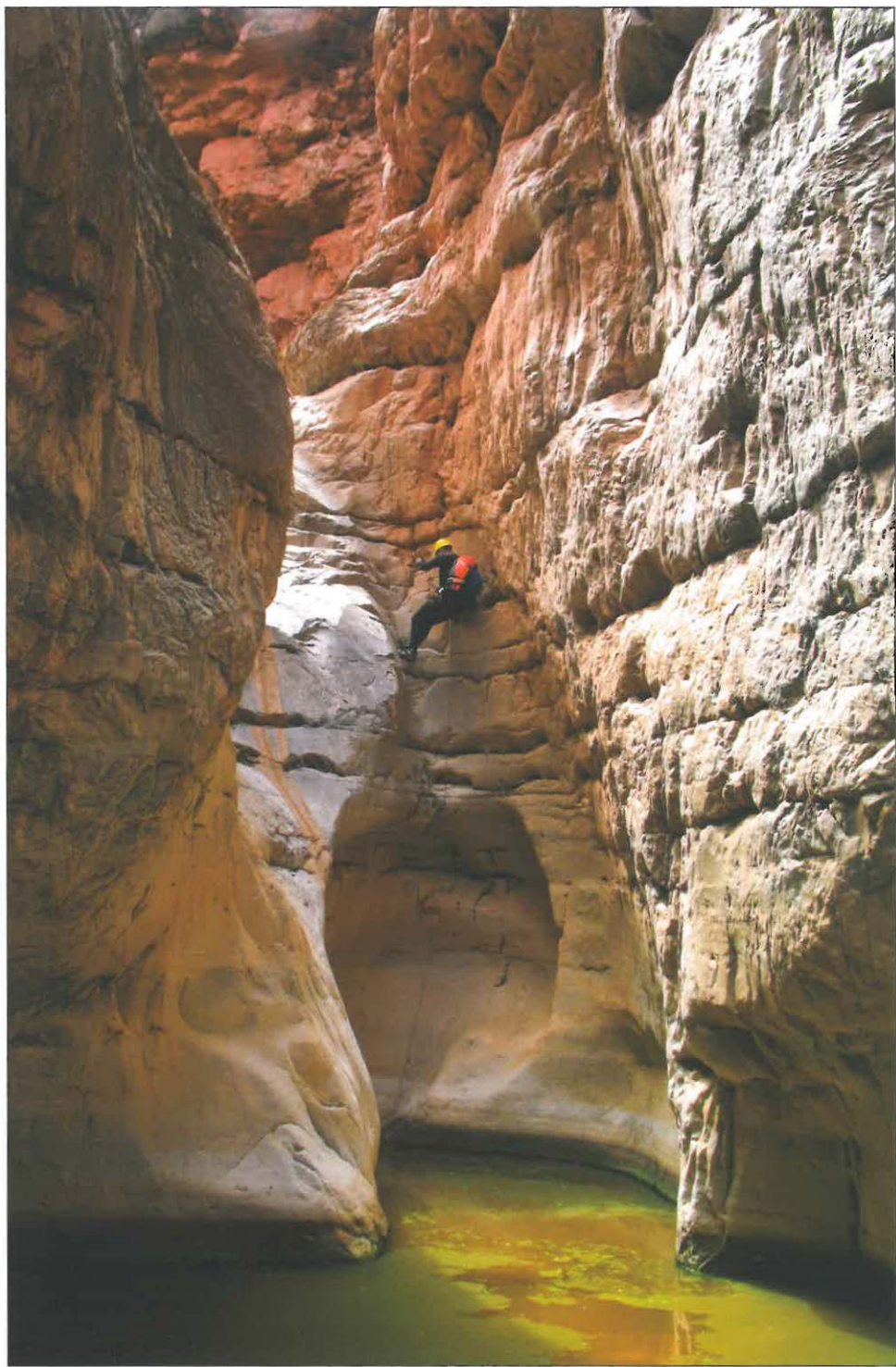


*North Canyon Narrows*



MAP 12: NORTH CANYON





*Albert Putzig rappelling in Shinumo Wash*



## 13: Twentynine Mile Canyon (aka: Shinumo Wash)

**OVERVIEW:** Twentynine Mile Canyon is a technical canyoneering trip to the Silver Grotto and Colorado River. A short packrafting trip is required to exit the canyon. Though possible to complete as a long dayhike, most people will prefer at least 2 days to complete this trip.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use area: SG9

**REQUIRED GEAR:** 1x150' rope (more rope than needed, but allows for easier pulls), 40' webbing, 4 rap rings, harness, descender, helmet, carabiners, drybag, shoes with good traction, wetsuit, packraft, paddle and personal floatation device.

**SPECIAL CONSIDERATIONS:** Water is available in the Redwall in Shinumo and at the Colorado River. This canyon requires good natural anchor skills. The water in this canyon is extremely cold, wetsuits are required at all times of the year. There is no hikers exit from the beach at the mouth of Shinumo Wash. River travel is required in order to complete this trip. The best exit is at Fence Fault, which lies about 1 mile downriver on the left. This hike requires permits from both the National Park Service and the Navajo Parks and Recreation Department.



**ACA Rating:** 3 B V

**Distance:** 9 miles

**Physical Difficulty:** Strenuous

**Elevation:** 5,430 – 2,890 ft.

**Time Needed:** 1 – 2 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Tatahatso Point 7.5 North Canyon Point 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89 about 85 miles to the small Navajo Village of Cedar Ridge. At Cedar Ridge, turn left between mileposts 505 and 506 on Navajo Road 6110, following the sign for the Cedar Ridge Full Gospel Church (zero your trip odometer). Ignore the many minor roads branching off along this route. At the 6.9-mile point, stay right on 6110. Remain on the main track (ignoring many minor roads that branch off on one side or the other) to the 16.8-mile point. Turn left onto a less traveled and rougher road. At the 19.3-mile point, turn right, then left at the 19.7-mile point. Half a mile later (20.3 miles), turn into a small pull out on the right and park at GPS Point - UTM: 12S 427548 mE, 4039698 mN, WGS84 Datum.

### TRIP DESCRIPTION

From the car park, head northeast down the slope to pick up a distinct and cairned trail. The route you are to follow was constructed by the Bureau of Reclamation in the 1950s to get horses and equipment down to the site of a proposed dam which was to be located near Redwall Cavern.

The path leads down into a minor side drainage of Shinumo Wash only to leave the wash on the left a short distance later to bypass a large limestone pour-off. The route then



zigzags steeply down through the Kaibab and Coconino formations. Once through the Coconino, the path traverses the slope in a northerly direction before dropping steeply down a series of tight switchbacks to the top of the Supai at the bottom of the wash.

Turn left and rock-hop down the wash. A short distance downcanyon, look for a cairned path that begins on stream left. This good trail will allow you to avoid the bulk of the rocky bed of the wash, saving both time and effort. The trail crosses the drainage several times as it descends the length of Shinumo. Look carefully for cairns on the opposite bank at these crossings to avoid getting off the trail.

After some hiking, the trail eventually crosses the wash at the head of the Redwall narrows. It's here that we'll leave the path and gear up (wetsuit, helmet and harness) before proceeding directly down the wash into the narrows. After a few short downclimbs (be aware that the polished Redwall provides very little traction), you'll arrive at the first rappel, a 50-footer into a pool from a rock-chock up on a small shelf on canyon right. Just beyond is rappel #2, another 50-footer into a pool, this time from webbing threaded through some dissolution holes on canyon left.

The next rappel is a stair-stepped drop from a climber's nut and tri-cam on canyon right into an oval pool. Skirt the next drop-off on a bench on the right and downclimb at the only possible point (less experienced climbers will want a hand-line or belay). After downclimbing a chockstone and sliding a short chute, you'll arrive at the final rappel, a 35-footer into a pool from a pinch point on the right of a large chockstone or a climber's nut located on top of the rock.

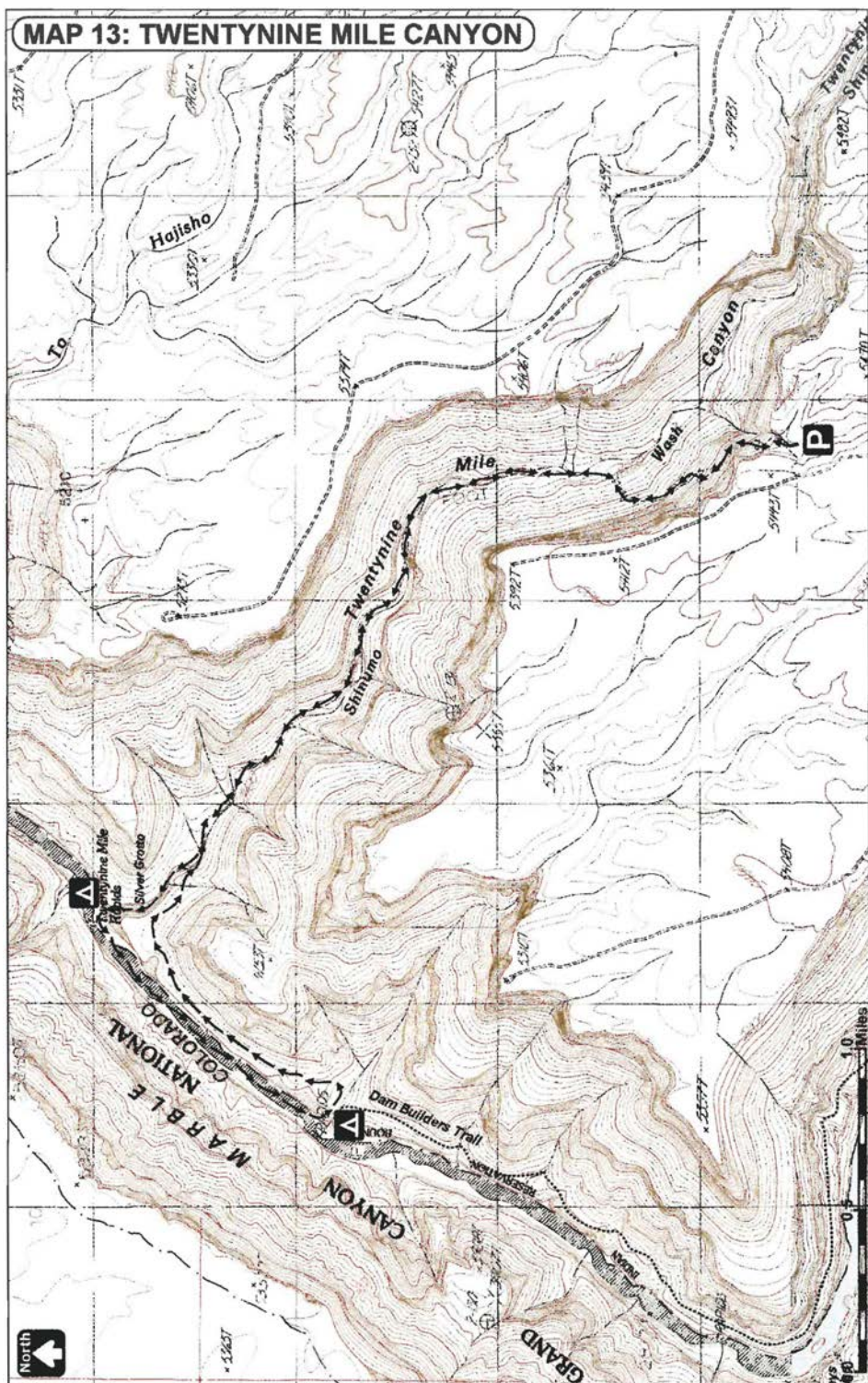
You are now standing in the famed Silver Grotto, which is usually only seen by the most adventurous of the rafting crowd. A few slides and downclimbs will bring you to the mouth of the canyon and the Colorado River. There is good camping on the beach and plenty of water.

When ready, inflate your packraft and float downriver about a mile to the small beach on river left at Fence Fault. There is one minor riffle that you must pass through along the way, but the current is otherwise smooth. From the beach at Fence Fault, climb the stair-stepped cliff just downriver of the pour-off at the mouth of the fault to pick up a well trodden hiker trail. The path climbs up a short distance to a junction with the continuation of the dam-builders trail you had followed in earlier. Right will take you along the top of the Redwall downriver for about 3 miles to a spot with good views of South Canyon, Stanton Cave, Vasey's Paradise and Redwall Cavern. Left leads upriver along the Redwall to Shinumo Wash at the head of the narrows. When ready, proceed left to retrace your steps back to the rim and your vehicle.

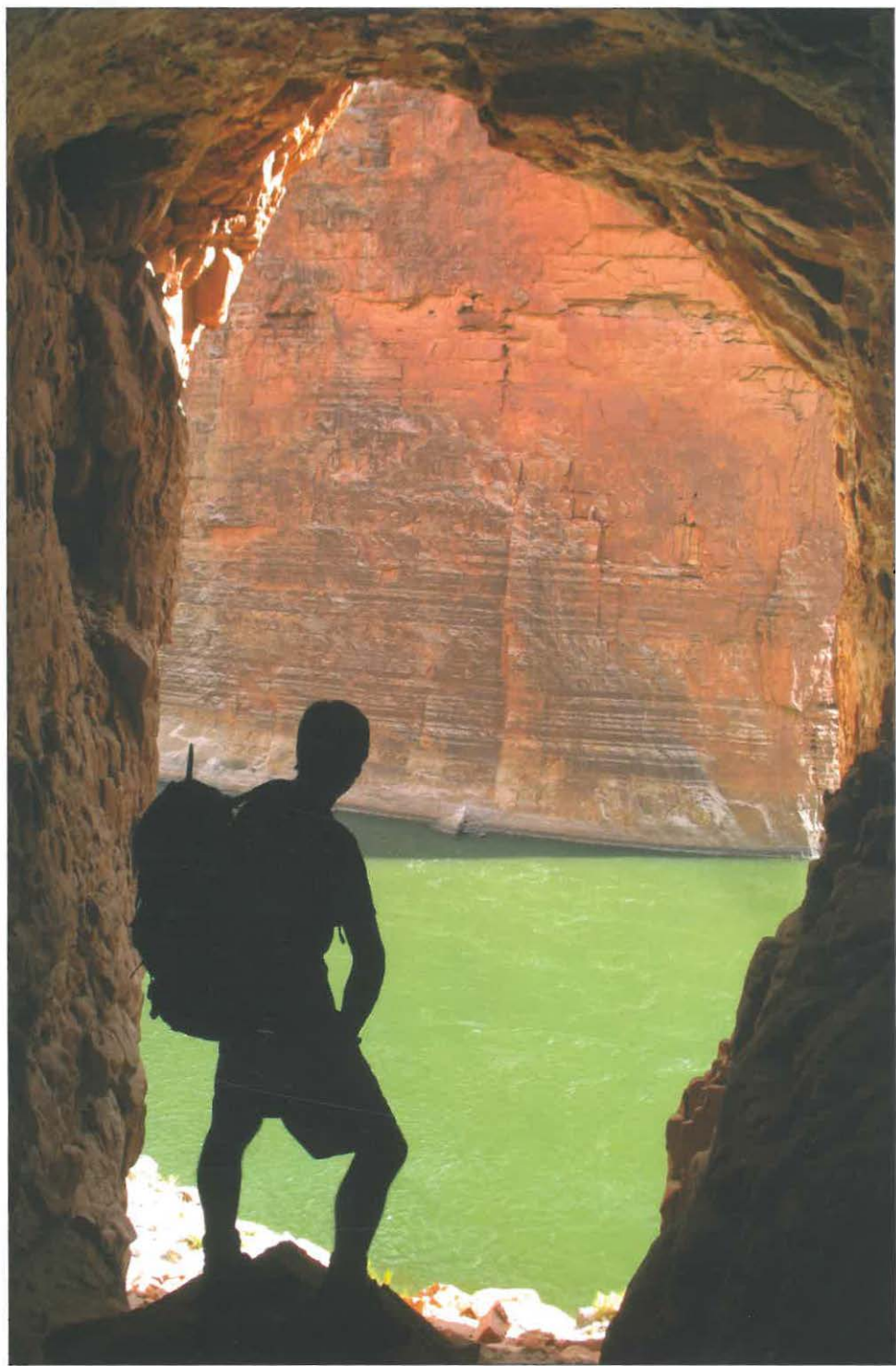
## ***AUTHOR'S RATING ★★★★★***

Without any information about the canyon, a group of 3 friends and I carried several ropes down and attempted a descent. Upon arrival, we found that anchors had been left in place by a previous group and we made it down to the last rappel into the Silver Grotto before we ran out of time and had to retreat. At a later date, I returned carrying a packraft and completed the canyon as a through trip by floating downriver and hiking out via Fence Fault.

MAP 13: TWENTYNINE MILE CANYON







*View from Stanton's Cave near South Canyon*



## 14: South and Bedrock Canyons

**OVERVIEW:** Several nice non-technical hikes are described featuring Redwall narrows, a spring, and cave. The Bedrock route provides a shortcut into the canyon and features some short, but scenic narrows in the Supai. Hiking options include: a down-and-back trip using the traditional South Canyon trailhead, a canyoneering route down Bedrock Canyon or a fast and steep entry via the Bedrock route.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AC9

**REQUIRED GEAR:** Most groups will find a 50-foot rope to be of use, a wetsuit is required for the Redwall narrows in South Canyon during cooler times of the year.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. At least one member of the group should be a good climber if descending Bedrock Canyon from the top or if descending the Redwall narrows in South Canyon.



**ACA Rating:** 2B III

**Distance:** 6 – 11.1 miles

**Physical Difficulty:** Strenuous

**Elevation:** 5,580 – 2,880 ft.

**Time Needed:** 6 – 10 hours

**Best Time of Year:** Fall, Winter, Spring

**Vehicle:** Passenger Car (South Canyon)  
High Clearance Vehicle (Bedrock)

**Car Shuttle:** No

**Maps:** USGS Buffalo Ranch 7.5  
North Canyon Point 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A towards Jacob Lake and follow it across the Navajo Bridge. Between mileposts 559 and 560, turn left onto House Rock Buffalo Ranch Road (Forest Road #8910, there is also a sign for South Canyon).

**SOUTH CANYON TRAILHEAD:** Follow House Rock Buffalo Ranch Road for 19 miles; then turn left onto Forest Road #632 (also signed for South Canyon). After 1.5 miles, turn right (just before reaching the ranch), following the sign for the canyon once again. Go through the gate and park in the area provided.

**BEDROCK TRAILHEAD:** Follow House Rock Buffalo Ranch Road for 11 miles to a left branching dirt road located a short distance past the Cane Ranch. Turn left onto this dirt road. After 4.9 miles you'll pass through a fence line and 0.5 miles later you'll pass the Buffalo Tanks. Continue driving (ignoring any minor branching roads) to a point 10 miles from House Rock Buffalo Ranch Road to a right branching fork. Turn right and follow this road 1.3 miles to the Bedrock Trailhead and park next to the fire ring at GPS Point - UTM: 12S 421733 mE, 4040773 mN, WGS84 Datum.

### TRIP DESCRIPTION

**BEDROCK CANYON:** The semi-loop described below enters the head of Bedrock Canyon and exits via the steep, but well cairned Bedrock route. It is also possible to use this latter route as an entry to South Canyon (though you'll miss the Supai narrows in Bedrock).

From the Bedrock Trailhead, walk west along the relatively flat rim of Bedrock canyon

for almost 2 miles to a point where you can easily walk down into the canyon bottom near GPS Point - UTM: 12S 418959 mE, 4041048 mN, WGS84 Datum. There are some very large boulders in the upper part of the canyon that require some route-finding and climbing to negotiate. Continue downcanyon into the Coconino Sandstone layer, which enters a slickrock section culminating in a 100-foot dryfall. Retrace your steps a short distance to locate a cairned route on canyon left that bypasses the falls to descend a loose scree slope back down into the canyon bottom.

Below the Coconino dryfall, you'll be faced with more of the same boulder hopping and route-finding, including another bypass on the left to descend a steep section where the canyon enters the Hermit Shale. A bit farther down is a 30-foot pour-off that may be bypassed on a dirt slope on the right.

The canyon forms some pleasant, if short, narrows in the Supai, which end in a chute with an 8-foot drop. A rope ladder was fixed in place when I was here, though it might be easier to simply use your own rope and spot the last person down from below. Just beyond this obstacle is a larger pour-off, which may appear more problematic at first than it really is. Skirt the pour-off to the left a short distance to locate the only possible place to descend. Though exposed, the climb is easier than it first appears. Less experienced climbers should be given a belay.

Continuing downcanyon, cairns will appear, these mark the Bedrock route that leaves the canyon on the left (north). This is the route that you'll be using for your ascent to the rim on the return. A short distance later, you'll reach the junction with South Canyon, which comes in from the right.

**SOUTH CANYON TRAILHEAD:** From the trailhead, walk down past the information signs to begin descending very steeply into the canyon. This trail is not maintained and requires the use of hands in a few places. When you reach a small bench with an overlook into the canyon, the trail bends right and continues steeply down the slope. Once in the canyon bottom, the route proceeds downcanyon. There are cairns marking the way and some good stretches of hiker made trails on one side of the canyon or the other.

**CONTINUATION OF SOUTH CANYON:** Just beyond the Bedrock/South junction, you'll reach a large dryfall, which is easily bypassed via a long, well trodden, cairned route on the right. Later, in the lower end of the canyon, you will have a choice of proceeding through the Redwall narrows, or following a bypass trail that leads up and around this section on the left (north). See below for a description of the former.

The bypass trail stays high on the left-hand slope of the canyon, climbing gradually as you progress. Near the river, the path begins to descend to reach a break in the cliffs allowing access to the river. Follow the benches downriver to reach the mouth of South Canyon.

To reach Stanton's Cave and Vasey's Paradise, follow the beach and rocky slope downriver. The cave lies a short distance above the river on a steep slope. It is considered an archeological site in which split figurines 3,000–4,000 years old were found as well as animal bones dating back even further. The current gate was put into place in 1997 to preserve these historic resources as well as afford protection to a colony of Townsend's big-eared bats (once thought to be the largest maternity colony of this species in Arizona).

Farther downriver you will come to Vasey's Paradise, a large spring that is gushing from the canyon wall. Keep your eyes peeled for poison ivy, which abounds in the area. This marks the turnaround point for your hike, when ready, return the way you came.

**REDWALL NARROWS:** Be aware that this section is somewhat challenging and

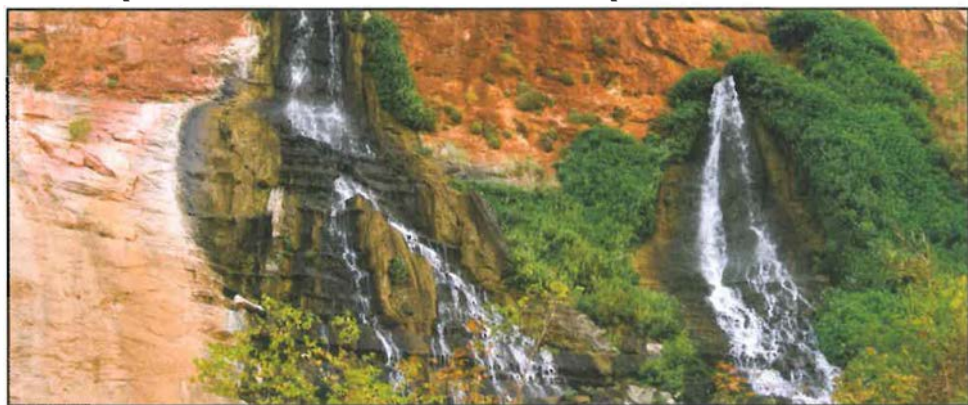
is suitable for moderately experienced climbers and canyoneers familiar with belaying and spotting. As with any canyoneering route, the canyon can change with each rain storm and will be made more difficult when wet and muddy. There are 7 chockstone drop-offs that must be descended to get all the way to the river and at least one deep pool to wade. The largest of these drop-offs is approximately 15 feet and the downclimbs become progressively more difficult as you progress downcanyon. If you are descending, there are several spots where it is advantageous to lower your pack to allow the climb to be completed unencumbered. Each party should have at least one good climber who can act as an anchor to belay other members of the group down the drops, and then climb down last with a spot from below (last man at risk). The last chockstone is the most difficult, but may be made easier if a log is in place for use as a ramp (do not count on it being present).

**BEDROCK ROUTE:** This route is described from below; however, it could just as easily be used as a route down into the canyon (simply proceed south from the Bedrock Trailhead to locate the top of the route). Though there is little in the way of an established trail, the route is cairned at frequent intervals, making it fairly easy to follow. Some climbing requiring the use of hands is necessary in a few spots, but both hand and foot holds are solid throughout.

From the lower end of Bedrock, just above the confluence with South Canyon, pick up the cairned route that exits the canyon to the north. The route climbs steeply up through the Supai via a shallow gully, then bends right and begins ascending towards a prominent debris slope in the Coconino above. At the top of the Coconino, look carefully for the cairned route that bends to the right to then begin climbing along the spine of a ridge that comes down from the Kaibab layer. Follow the cairns to the rim and hike due north up the slope to the road you drove in on earlier and your vehicle.

#### **AUTHOR'S RATING ★★★**

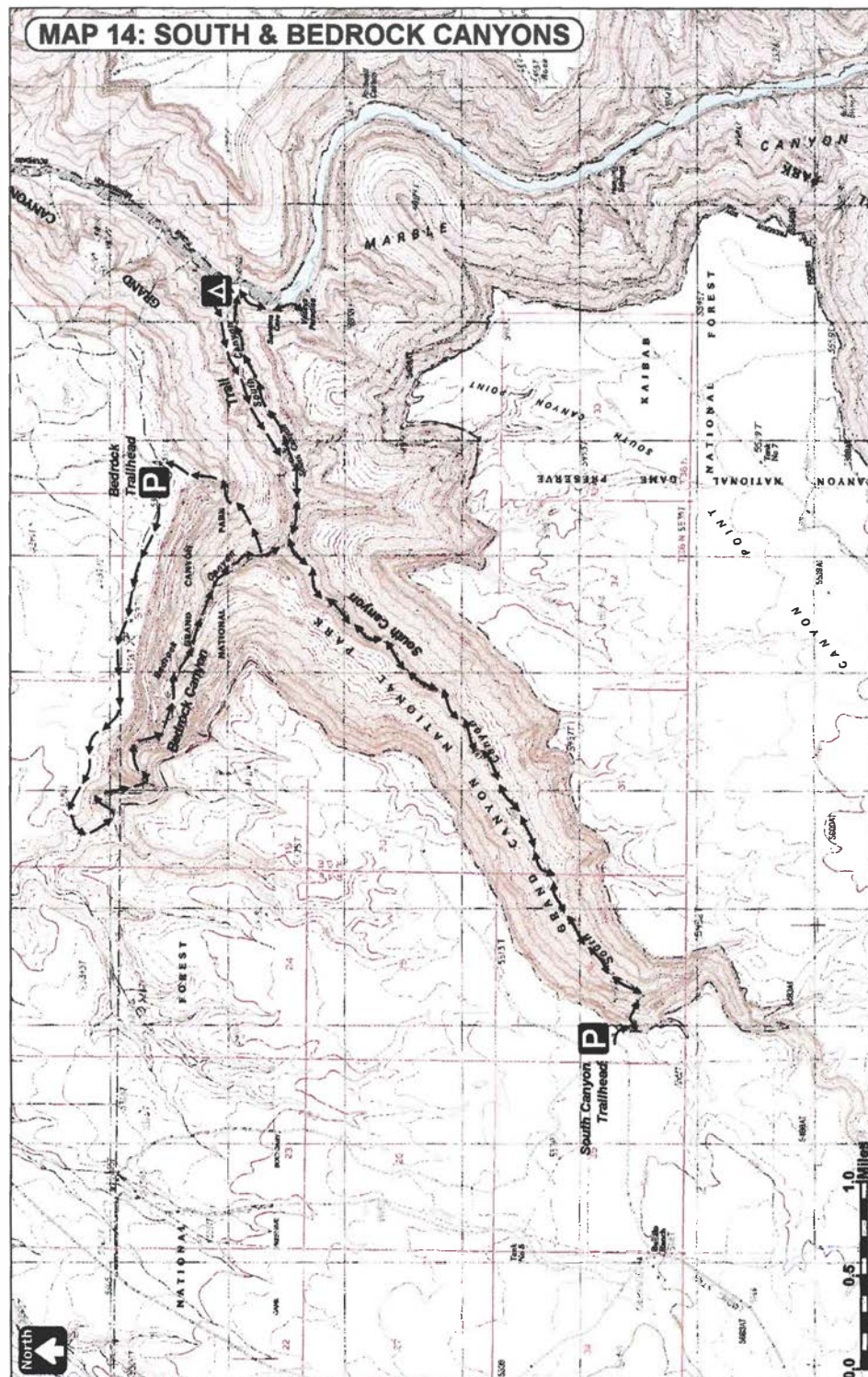
The author and his wife hiked downcanyon, taking the hiker route around the narrows. At the river we looked at the cave then ate lunch below the spring. On the return trip, I went up the narrows solo, while my wife went around on the trail. I made it up the first climb with some difficulty, used a dead log as a step to get up the second and had no trouble with the other ascents. At a later date, I descended Bedrock Canyon from the top, then went down to the river through the narrows. The logs that are usually in place had been washed away and the canyon was full of pools and mud due to recent rains. The return trip was made via the Bedrock route.



*Vasey's Paradise*



**MAP 14: SOUTH & BEDROCK CANYONS**



## 15: Nautiloid, 35-Mile and 36-Mile Canyons

**OVERVIEW:** A backpacking/canyoneering trip to three short, but pretty, Redwall canyons in the Marble Canyon area, one of which features some interesting fossils. River travel is required in order to complete Nautiloid Canyon.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use area: SG9

**REQUIRED GEAR:** **Nautiloid Canyon:** 2x200' ropes, 40' webbing, 3 rap rings, packraft, paddle and personal floatation device. A wetsuit may be required for the raft trip during cooler weather; **36-Mile Canyon:** 2x200' ropes, 40' webbing, 3 rap rings; **35-Mile Canyon:** 2x150' ropes, 40' webbing, 3 rap rings; **plus:** harness, descender, helmet, carabiners, drybag, shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. Water may be available in potholes in the Redwall in each of these canyons and in Tatahatso but should not be counted on. These canyons require excellent natural anchor skills. All members of the group should possess very good climbing skills if completing 36-Mile Canyon. River travel is required in order to complete Nautiloid Canyon. This hike requires permits from both the National Park Service and the Navajo Parks and Recreation Department.



**ACA Rating:** 3B VI

**Distance:** 16.4 – 20.8 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 5,690 – 2,880 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Tatahatso Point 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89 about 85 miles to the small Navajo Village of Cedar Ridge. At Cedar Ridge, turn left between mileposts 505 and 506, following the sign for the Cedar Ridge Full Gospel Church on Navajo Road 6110 (zero your trip odometer). Ignore the many minor roads branching off along this route. At the 6.9-mile point, stay right on 6110. At the 7.5-mile point, stay left on a somewhat less traveled road to pass a stock pond. Stay to the right at the 8.3 and 8.7-mile marks. At the 9.6-mile point, stay left where the road forks; stay left again at mile 10.3 (right leads towards several hogans and a corral). At the 11.7-mile point stay straight; at 12.9 the road forks, stay right to pass a very large stock pond, which will be on the right. Drive straight across the bowl that forms the stock pond to pick up the road on the other side as it climbs a hill. At the 15.5-mile point, the road forks; stay right. At mile 19, stay right and 0.3 miles later, the road begins to descend next to a dry gully. At the 20-mile point, the road makes a sharp bend to the left. Pull over and park at the bend near UTM: 12S 425447 mE, 4029924 mN, WGS84 Datum.

### TRIP DESCRIPTION

**APPROACH:** From the car park, leave the road and pick your way down into the shallow wash to the north. Follow the wash down through Eminence Break. Once through

the break, head right along the cliff edge to identify a minor drainage located up against the cliff face at UTM: 12S 426500mE, 4030617 mN, WGS84 Datum. This ravine takes you through the Kaibab Limestone to the bed of Tatahatso.

Carefully pick your way down this very steep ravine, passing packs, or using ropes where necessary to negotiate a few moderate drops. Several sections of loose gravel and crumbly soil add difficulty to the descent. Once in the main drainage of Tatahatso, simply proceed downcanyon, route-finding and climbing through the many large boulders in the area. One bypass to the right is required in the Coconino Sandstone layer to get around a dryfall by either clinging to a narrow shelf or climbing high up and around the drop. Eventually, you'll arrive at a junction with Leche-e Wash, which enters from the right. Pothole water is sometimes present at this junction. The large boulders abate somewhat for the remaining hike downcanyon to the top of the Redwall narrows.

On this trip, we're going to skip the Tatahatso narrows and remain on top of the Redwall, skirting the canyon to the right (north). Follow the rim of the narrows, then bend north to follow the Redwall bench upriver. While there are sections of flat easy hiking, they are the exception. For the most part, you'll be climbing, descending or skirting one or another of the minor drainages that extend to the river. Scan the route ahead as you hike to choose the path of least resistance.

After contouring around a big bowl you'll pass 36-Mile Canyon, which we entered near GPS point - UTM: 12S 425921 mE, 4034495 mN, WGS84 Datum. After skirting the head of this drainage, continue north to soon encounter a fairly well developed river-runner's trail, which, in addition to providing some good views of the Bridge of Sighs and caves on the other side of the Colorado, offers an easy route to the river and water. It may be worth following the trail to the river simply to become familiar with the path since it will be used as the route back to the top of the Redwall for each of these canyons. Continuing north on top of the Redwall, the hiking is more of the same until you eventually reach 35-Mile Canyon at UTM: 12S 425426 mE, 4036072 mN, WGS84 Datum, then Nautiloid Canyon a short distance later at UTM: 12S 425376 mE, 4036615 mN, WGS84 Datum.

**NAUTILOID CANYON:** Proceed down into the drainage of Nautiloid Canyon until it begins cutting into the Redwall. The first rappel is 70 feet in length using the chockstone a short distance down from the top of the drop. This is followed immediately by another falls, which can be bypassed by good climbers by scrambling around on the left (though getting back down into the streambed is a little tricky). The bypass is followed by the second and final rappel which is 175 feet in length (about half is free hanging) using a constructed rock pile at the top as an anchor. After pulling the rope and removing your harness, walk downcanyon a short distance to where the water has polished the limestone streambed smooth. Here, you'll find the outlines of nautiloid fossils as well as many cross sections of crinoids embedded in the rock. Nautiloids were among the first cephalopods to have evolved and are ancestors of the chambered nautilus that lives today. Nautiloids possessed a shell similar to the chambered nautilus except that it is straight and funnel shaped rather than formed into a spiral. The chambers that you see in the canyon floor were filled with gas by the animal to provide buoyancy.

With the science lesson out of the way, continue the remainder of the way to the



beach (which features some good campsites) and the river. It is not possible to walk the bench on river-left downstream, so instead, we'll inflate packrafts for the 1-mile float to the beach across from the Bridge of Sighs. The river is very smooth in this area and presents no challenges. From the beach across from the bridge, deflate your raft and pick up the use trail described earlier and follow it back up to the top of the Redwall bench.

**35-MILE CANYON:** Proceed down the drainage of 35-Mile Canyon until you reach a dryfall that can be bypassed by working your way around to the right to descend a steep slope. Continue down canyon in the streambed to the first rappel, which is 35 feet in length, using a smallish chockstone at the top as an anchor (you may want to use something a bit more sturdy). Just beyond is rappel #2, which is 160 feet in length down a very narrow chute (I suggest hanging your pack), using a rock wedged in a small crack up above the streambed on the left. Be aware that there is a chockstone about three-quarters of the way down that you'll rappel over the top of and that has narrow pinch points on either side. When you pull your rope it will fall over and behind this chockstone potentially creating a hard pull or sticking the rope. The last person down may wish to re-rig from the chockstone to avoid this scenario. A short distance below, the canyon forms a very narrow, chockstone filled crack. Downclimb into the crack to the canyon's mouth and tie a sling around the last chockstone to complete a 90-foot rappel to the beach at the river. After pulling the rope and removing your harness, follow the left bank of the river downstream  $\frac{1}{2}$  mile to the beach across from the Bridge of Sighs and the trail to the top of the Redwall. Depending on river levels, you may have to perform a brief wade just below 35-Mile Canyon, but the hike is otherwise straightforward.

**36-MILE CANYON:** Before attempting 36-Mile Canyon, be sure that you are capable of hiking the bench along the river back to the river-runner's trail across from the Bridge of Sighs! This should be done by first descending the trail to the river, then exploring downriver along the embankment. The crux of this route consists of two small bays that require very good climbing skills to negotiate. The first (heading downriver from the beach) requires a 10-foot vertical climb to a narrow shelf that can be followed around the bay. The second, and harder of the two, utilizes a few tenuous foot and hand holds right at river level (which may not be visible if water levels are high). Once you are confident that you can negotiate this route, you may return to the top of the Redwall and the head of the canyon.

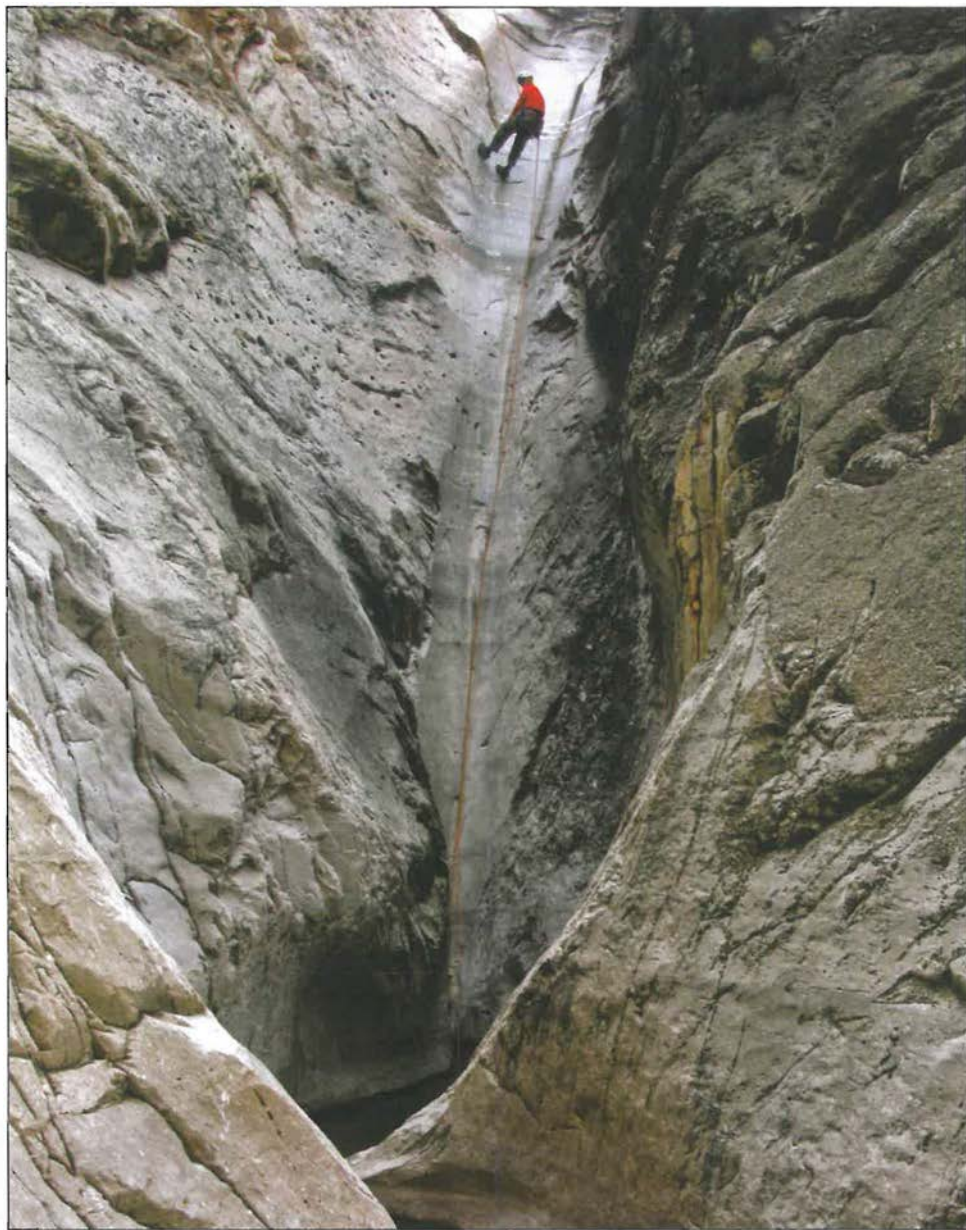
Descending the drainage of 36-Mile Canyon, you'll soon encounter the Redwall and a pour-off that can be bypassed on the right using a ledge, followed by a moderately difficult downclimb. The first rappel lies just below and is 120 feet in length using a rock pile consisting of two large boulders at the top as an anchor. A short distance below is rappel #2, which is 85 feet in length using a knot-chock wedged in a crack on the right. The canyon makes an abrupt turn to the left to the final rappel, which is 65 feet in length to a shelf (you do not need to rappel all the way to the bottom of the drop) from a sling around a protruding block of limestone on the left. Follow the shelf to the right to a bench, and then follow the bench upriver, negotiating the two difficult climbs described above. Once at the beach across from the Bridge of Sighs, pick up the river-runner's trail and follow it back up to the top of the Redwall bench.

**EXIT:** There's no trick to the exit, although it does require a considerable amount of effort. Simply retrace your steps south along the top of the Redwall into Tatahatso Wash and then back up canyon to the rim following the same route used for the entry.

## *AUTHOR'S RATING ★★★*

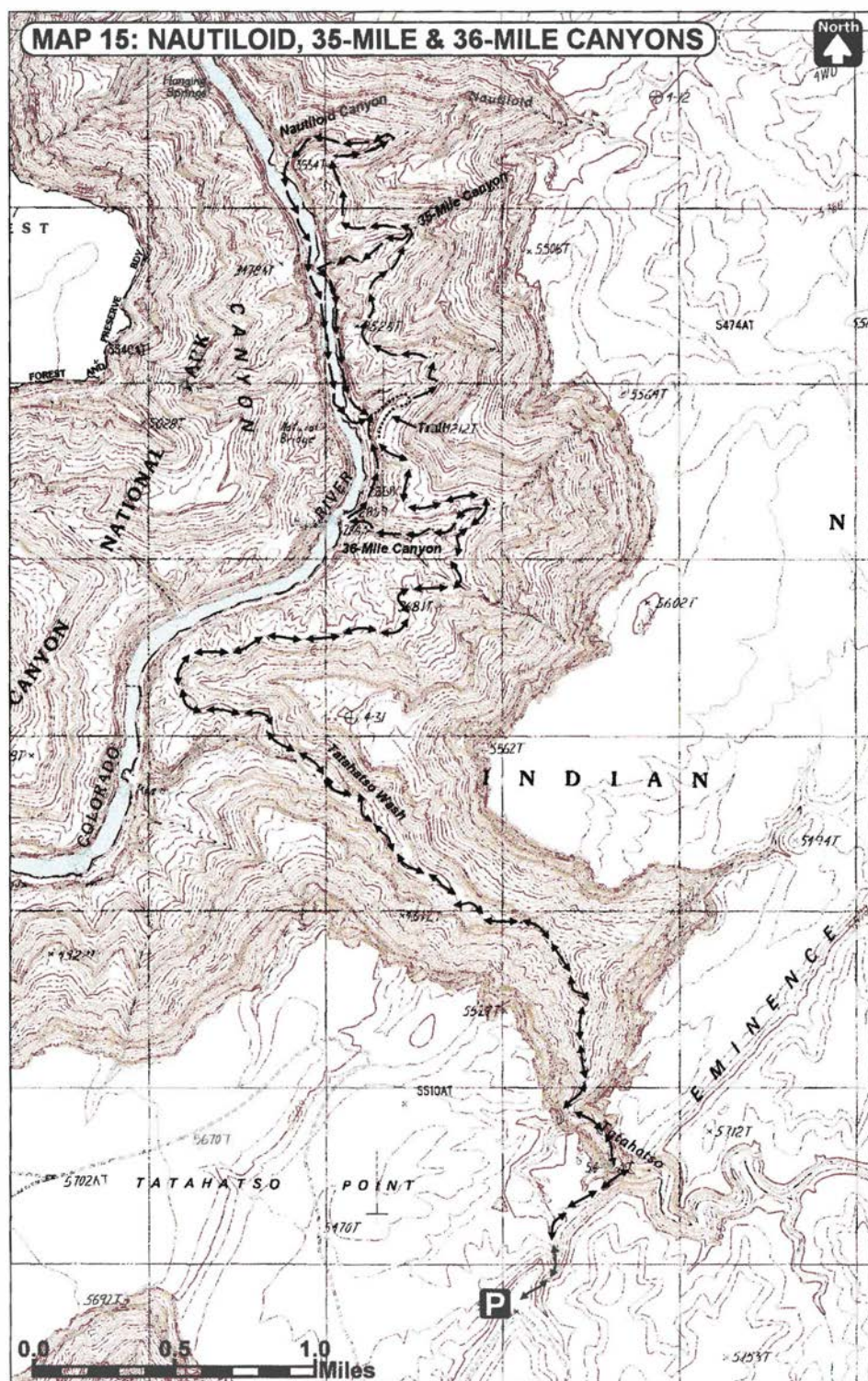
Rich Rudow and I completed this hike as a 2.5-day backpacking trip. The first day, with a late morning start, we hiked down to camp across from the Bridge of Sighs, exploring the trail to the river. On day two, we made two broad loops, descending Nautiloid Canyon and then 36-Mile Canyon. The final day we descended 35-Mile Canyon and hiked out.

The trip could be extended by continuing southwards to descend Tatahatso Wash, rafting to Eminence Break to exit.



*Rappelling in 36-Mile Canyon*









*36.7-Mile Canyon: Interlinked potholes*

## 16: 36.7-Mile Canyon

**OVERVIEW:** A difficult hike in a remote and rugged area featuring a pretty slot canyon. This route should only be attempted by fit hikers with excellent climbing skills and significant off-trail Grand Canyon experience. River travel is required in order to complete this trip.

**LOCATION:** Navajo Nation/Grand Canyon National Park. North and South Rims. Use areas: AD9, SF9

**REQUIRED GEAR:** 2x250' ropes, 60' webbing, 8 rap rings, drybag, personal flotation device, packraft, paddle and a wetsuit, optional: throw bags - for pothole escape.

**SPECIAL CONSIDERATIONS:** Water is available in the Redwall narrows of 36.7-Mile Canyon and at the Colorado River. The approach for these hikes is treacherous and involves a considerable amount of walking on high angle, crumbly soil. 36.7-Mile Canyon contains a keeper pothole, be sure to identify the pothole before rappelling into it. There is no hiker exit from the beach at the mouth of 36.7-Mile Canyon, river travel is required in order to complete this trip. The best exit is located at Eminence Break, which lies about 7.5 miles downriver. 36.7-Mile Canyon requires good natural anchor skills. These hikes require permits from both the National Park Service and the Navajo Parks and Recreation Department (if exiting at Eminence Break).



<b>ACA Rating:</b> 4B R VI	<b>Distance:</b> 12.0 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 5,600 – 2,820 ft.
<b>Time Needed:</b> 2 – 3 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> High Clearance Vehicle	<b>Car Shuttle:</b> Yes
<b>Maps:</b> USGS Tatahatso Point 7.5	<b>Navigation:</b> Difficult

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89 about 85 miles to the small Navajo Village of Cedar Ridge.

**36.7-MILE CANYON:** Continue north on Highway 89. Turn left on Highway 89A towards Jacob Lake and follow it across the Navajo Bridge. Between mileposts 559 and 560, turn left onto House Rock Buffalo Ranch Road (FR #8910). Follow this well graded dirt road for 23 miles to a junction. Stay left, remaining on #8910 as it climbs a low hill, then turn left onto FR #445E (if you reach a signpost pointing left for Buck Farm Viewpoint - 3 miles, you've gone too far). Stay straight on FR #445E where a road branches left at the 1.4-mile point and straight again at the 2.2-mile point where a road comes in from behind on the left. Park at the 5.2-mile point next to a concrete trough (Tank #7 on the topo), which lies just off the road on the left at UTM: 12S 421761 mE, 4035660 mN, WGS84 Datum.

**CAR SPOT (EMINENCE BREAK):** At Cedar Ridge, turn left between mileposts 505 and 506 following the sign for the Cedar Ridge Full Gospel Church on Navajo Road 6110 (zero your trip odometer). Ignore the many minor roads branching off along this route. At the 6.9-mile point, stay right on 6110. At the 7.5-mile point, stay left on a somewhat less traveled road to pass a stock pond. At mile 9.6, stay left where the road forks; stay left again at mile 10.3 (right

heads towards several hogans and a corral). At the 11.7-mile point stay straight; at 12.9, the road forks; stay left to pass a very large stock pond that will be on the right. Just past the stock pond at the 13.5-mile point, turn right onto a rougher dirt road that crosses a dry stream bed. Turn left 0.2 miles later. At the 15.5-mile point, the road forks, stay right. At mile 19, stay right and 0.3 miles later, the road begins to descend next to a dry gully. At the 20.7-mile point, the road ends at Eminence Break. UTM: 12S 425447 mE, 4029126 mN, WGS84 Datum.

## *TRIP DESCRIPTION*

**APPROACH:** From Tank #7, walk southeast across the flat plains for 10 minutes to reach the rim of 36.7-Mile Canyon. Identify a break in the Kaibab Limestone at GPS Point - UTM: 12S 422356 mE, 4035009 mN, WGS84 Datum and climb down through the break, contouring the slope to the left heading towards a large, detached column of Kaibab limestone that stands apart from the main cliff face. You have two choices of a route at this point; either continue contouring to the east at this level by traveling downcanyon along the top of the Coconino sandstone layer, or descend the steep ravine that lies directly below through the Coconino to arrive at the top of the Supai layer. Neither option is particularly pleasant due to loose, unstable soil that causes dirt and large rocks to roll and tumble with every step. The higher route is the quicker of the two, though it requires several exposed downclimbs that less experienced climbers might wish to avoid.

**High Route:** Those choosing the higher route will head east, parallel to the Kaibab cliff face towards a promontory (marked 5028 on the USGS quad), which juts into the canyon. As you near this landmark, the Coconino forms multiple bands. Remain on the band just above the largest cliff. While it may look like this route cliffs out where several drainages make an intrusion into the layer, there is enough of a ledge to allow you to safely continue. When the ledge eventually cliffs out, begin climbing down a series of Coconino Sandstone ledges choosing the path of least resistance. The route requires some route-finding as well as the negotiation of three drop-offs of 5–8 feet in height (heavy packs should be lowered past these obstacles). Once through the Coconino, continue working your way to the left (east) to locate and descend a steep ravine that lies just south of the 5028 promontory.

**Low Route:** Those who have opted to descend the steep slope below the Kaibab column to the top of the Supai layer must now contour the rugged, boulder-filled slope downcanyon. Your destination is a steep gully that lies just south of the 5028 promontory, which extends into the canyon. You'll have to climb and descend several times to get around numerous steep and rutted ravines that extend down from the rim.

**Continuation of Both Routes:** The gully just south of the promontory described above provides the only route through the Supai into the canyon bottom, all others end in vertical cliffs. Pick your way down this channel, staying to the left near the bottom to avoid a few steep spots. Once you finally arrive in 36.7-Mile Canyon, simply walk down the dry wash a short distance to the start of the Redwall slot.

**36.7-MILE CANYON:** After putting on your wetsuit and harness, downclimb the first 5-foot drop into the slot to identify a rock wedged under a ledge on the right. Sling the rock to complete a 20-foot rappel into a pool. Just beyond are three quick and short drops, which can be negotiated using a single 150-foot rappel using a tamarisk tree on the right. The next rappel is 12 feet in length from another tamarisk tree. The canyon widens slightly and it's possible to climb out via a steep break on the left.



A few downclimbs will bring you into the lower portion of the canyon, which consists of a series of plunge pools that extend the remaining distance to the river. Use a knot-chock wedged in a crack in the canyon wall on the left (located above a century plant), and a 200-foot rope and pull-cord to rappel 25 feet into a pool. Remain on rope and perform a short downclimb, then rappel a 12-foot drop followed by a 25-footer before pulling the rope. Be sure to keep your ropes untwisted to ensure a clean pull.

After completing several small downclimbs, rappel 35 feet from a rock and tree embedded in the floor of the canyon. This brings you to the top of a 90-foot rappel from a tamarisk just upstream from the drop. **⚠️WARNING⚠️** The pool at the bottom of the chute is a keeper pothole and is moderately difficult to exit when the water level is low. Before entering the keeper pothole, be sure to formulate your escape plan and make sure you can get back up the rope if it fails. A hook and etrier on an extension pole is one method that can be used to escape the pool. Climbers will also find that the pothole has a crack and protruding fin on the left that provides an excellent handhold.

Once out, wade the large pool on the other side, climb over the lip and complete a 10-foot vertical downclimb (belay less experienced climbers) into the bowl below. The final rappel to the beach lies immediately beyond. The rappel is 220 feet in length using a pinch point and small arch located in a crack on the right. Loose rocks may be found along the wall, so those below need to stay out of the rockfall zone while others are rappelling. After pulling your rope, a short walk will bring you to the small beach at the Colorado River and a few nice campsites.

**EXIT ROUTE:** The next challenge is to get to Eminence Break, which is found about 7.5 miles downriver. Inflate your packraft and use it to either cross the river to a point where you can hike along the bank, or float the river itself. Be aware that there are several large rapids between Tatahatso and Eminence Break that could prove unsafe to navigate in a packraft. These can be portaged by coming ashore above the rapid and carrying the raft downriver to a safe put-in point. Packrafters should portage the rapids at UTM: 12S 421887 mE, 4031679 mN, WGS84 Datum (bypass on right), and President Harding Rapids at UTM: 12S 423913 mE, 4027925 mN, WGS84 Datum (bypass on left). Other rapids may, or may not, be safe to run depending on water levels. Pull into shore on the left a safe distance upriver from the next set of rapids below President Harding Rapid at UTM: 12S 423962 mE, 4027290 mN, WGS84 Datum. This is a good place to organize equipment and stock up on water before the hike out.

When ready, head due east to pick up a well defined hiker trail. The trail begins climbing rather steeply up the slope nearly to the base of the Redwall (remain on the main track, there are several braided trails in the area), at which point it bends north (left) to cross the main fork of Tatahoysa Wash. The path levels out as it winds into and then out of this fork and into the left fork to begin climbing steeply up the slope towards an obvious break in the cliffs far above. Though it may not look possible from this vantage point, the route travels straight up and through this break to eventually top out at the canyon rim and the vehicle you spotted earlier.

#### **AUTHOR'S RATING ★★★★★**

While there are several interesting things to see in this area, the loose and crumbly rocks make hiking difficult and potentially dangerous, particularly for those carrying a heavy pack. On our first trip to the area Rich Rudow and I completed a dayhike to piece together

# EASTERN GRAND CANYON

entry routes to the canyon bottom. Half the day was spent locating a break through the Supai.

At a later date we returned to complete a descent of 36.7-Mile Canyon. The canyon was completed with a 200' rope and pull-cord which barely reached the ground on the final rappel (too close!). We then used packrafts to float to Eminence Break for the exit.



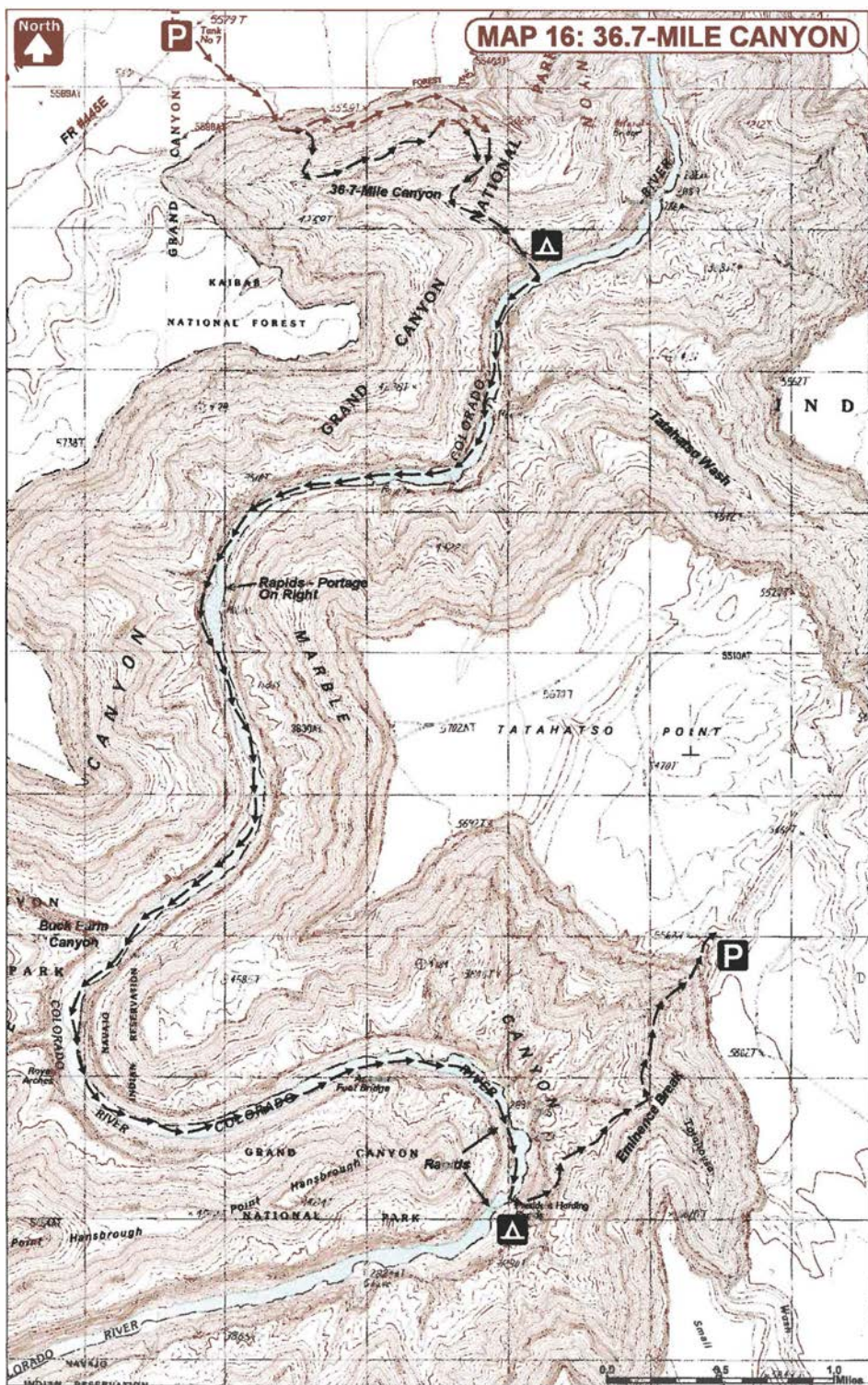
*Lower 36.7-Mile Canyon*



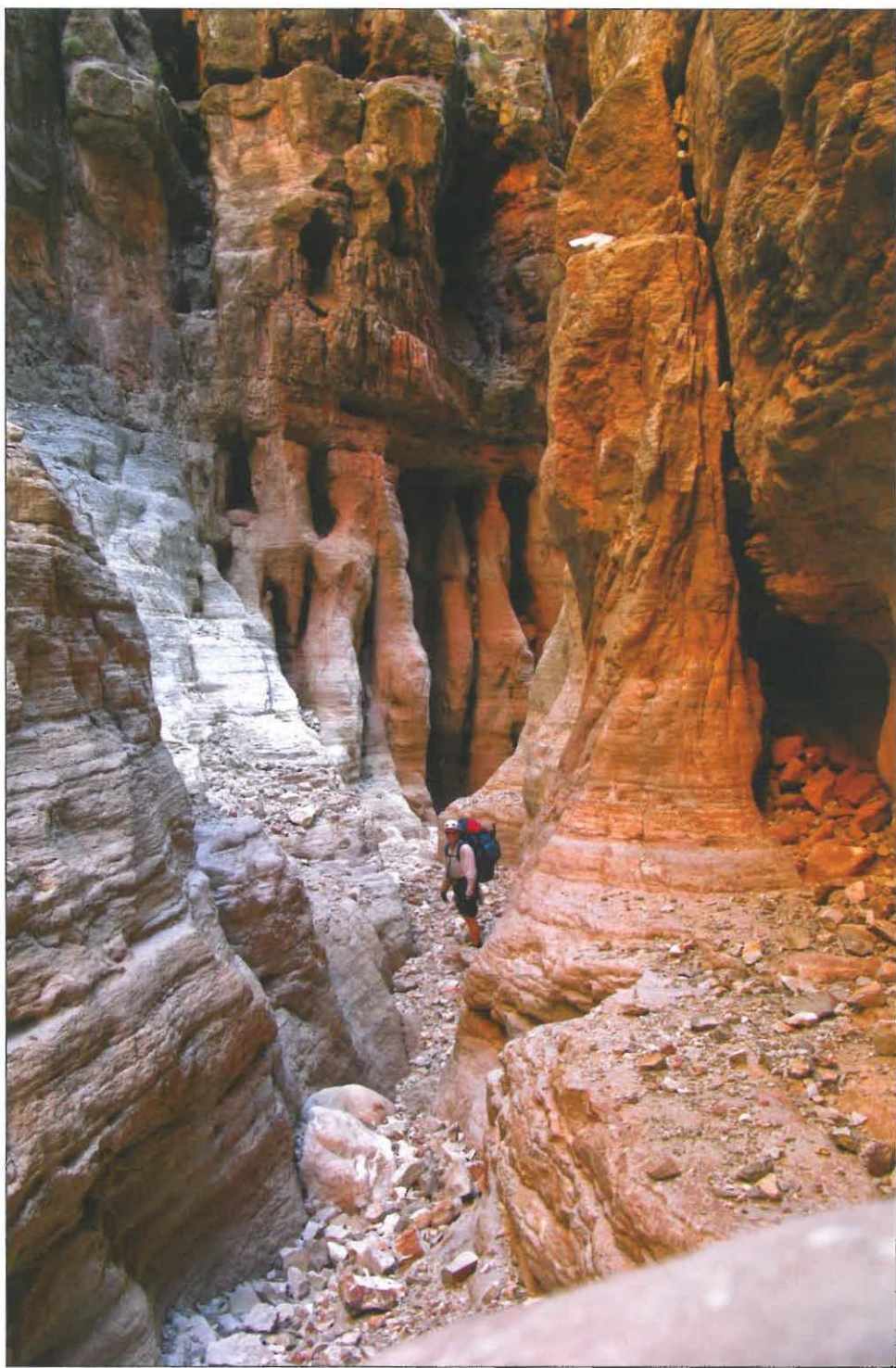
*36.7-Mile Canyon: The final rappel*



## 36.7-MILE CANYON







*Tatahatso Canyon: Narrows*

## 17: *Tatahatso Wash*

**OVERVIEW:** A remote and seldom traveled canyoneering loop hike through Tatahatso Wash on the Navajo Reservation, returning via the Eminence Break route after a 7-mile float down the Colorado.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use areas: SG9, SF9

**REQUIRED GEAR:** 1x 200' rope (or 2x100' ropes), 80' webbing, 7 rap rings, harness, descender, helmet, carabiners, drybag, shoes with good traction, packraft, paddle and personal floatation device. A wetsuit is required for the raft trip during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available within the Redwall narrows of Tatahatso Wash and at the Colorado River. This canyon requires good natural anchor skills. There is no hiker exit from the beach at the mouth of Tatahatso Wash. River travel is required in order to complete this trip. The best exit is located at Eminence Break, which lies about 7 miles downriver. This hike requires permits from both the National Park Service and the Navajo Parks and Recreation Department.



**ACA Rating:** 3B VI

**Distance:** ~14 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 5,690 – 2,820 ft.

**Time Needed:** 2 – 3 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Tatahatso Point 7.5

**Navigation:** Moderate

### *DRIVING DIRECTIONS*

From Flagstaff, drive north on Highway 89 about 85 miles to the small Navajo Village of Cedar Ridge. At Cedar Ridge, turn left between mileposts 505 and 506, following the sign for the Cedar Ridge Full Gospel Church on Navajo Road 6110 (zero your trip odometer). Ignore the many minor roads branching off along this route. At the 6.9-mile point, stay right on 6110. At the 7.5-mile point, stay left on a somewhat less traveled road to pass a stock pond. Stay to the right at the 8.3 and 8.7-mile marks. At the 9.6-mile point, stay left where the road forks; stay left again at mile 10.3 (right leads towards several hogans and a corral). At the 11.7-mile point stay straight; at 12.9 the road forks, stay right to pass a very large stock pond, which will be on the right. Drive straight across the bowl that forms the stock pond to pick up the road on the other side as it climbs a hill. At the 15.5-mile point, the road forks; stay right. At mile 19, stay right and 0.3 miles later, the road begins to descend next to a dry gully. At the 20.7-mile point you'll arrive at the Eminence Break trailhead and small parking area. UTM: 12S 425447 mE, 4029126 mN, WGS84 Datum. UTM: 12S 425447 mE, 4029126 mN, WGS84 Datum.

### *TRIP DESCRIPTION*

From the car park, walk back along the road you drove in on for 0.7 miles to where it makes a sharp bend to the right. Leave the road and pick your way down into the shallow wash to the north. Follow the wash down through Eminence Break. Once through the break, head right along the cliff edge to identify a minor drainage located up against the

cliff face at UTM: 12S 426500mE, 4030617 mN, WGS84 Datum. This ravine takes you through the Kaibab Limestone to the bed of Tatahatso.

Carefully pick your way down this very steep ravine, passing packs, or using ropes where necessary to negotiate a few moderate drops. Several sections of loose gravel and crumbly soil add difficulty to the descent. Once in the main drainage of Tatahatso, simply head downcanyon, route-finding and climbing through the many large boulders in the area. One bypass to the right is required in the Coconino Sandstone layer to get around a dryfall by either clinging to a narrow shelf or climbing high up and around the drop. Eventually you'll arrive at a junction with Leche-e Wash, which enters from the right. Pothole water is sometimes present at this junction. The large boulders abate somewhat for the remaining hike downcanyon to the top of the Redwall narrows.

The technical challenges begin a short distance into the Redwall. Rappel #1 is 60 feet in length from a knot-chock placed in a crack high on a steep bench on the right. Rap #2 is just beyond and is 75 feet from a pinch point at the top down a polished chute and beneath a chockstone into a beautiful amphitheater. A short walk brings you to Rap #3, which is 25 feet in length over a large chockstone to the base of a pool using a constructed rock pile that we built in front of the chockstone. After wading or swimming the pool, the canyon widens and a possible escape route appears on canyon right.

The canyon bends left to reach a tricky 15-foot downclimb (or rappel) into a pool. A short distance later, you'll arrive at rappel #4, which is 45 feet in length from a pinch point on the far right into a deep and gloomy slot. The next rappel occurs at a spot where the canyon makes a sharp bend to the left and is 50 feet from a knot-chock wedged in a crack at the top of the drop. Just beyond is a steep downclimb through a crack on the right (lower packs or use ropes). The sound of the river will become audible as you arrive at rappel #6, which is 50 feet in length from a pinch point on the left into a deep pool. The final rappel occurs just before reaching the river, and is 60 feet in length from a rock-chock on the left to the base of a pool. Skirt the pool to the right to arrive at the Colorado River just beyond.

The next challenge is to get to Eminence Break, which lies about 6.8 river-miles downriver. Inflate your packraft and use it to either cross the river to a point where you can hike along the bank, or float the river itself. Be aware that there are several large rapids between Tatahatso and Eminence Break that could prove unsafe to navigate in a packraft. These can be portaged by coming ashore above the rapid and carrying the raft downriver to a safe put-in point. Packrafters should portage the rapids at UTM: 12S 421887 mE, 4031679 mN, WGS84 Datum (bypass on right), and President Harding Rapids at UTM: 12S 423913 mE, 4027925 mN, WGS84 Datum (bypass on left). Other rapids may, or may not, be safe to run depending on water levels. Pull into shore on the left a safe distance upriver from the next set of rapids below President Harding Rapid at UTM: 12S 423962 mE, 4027290 mN, WGS84 Datum. This is a good place to organize equipment and stock up on water before the hike out.

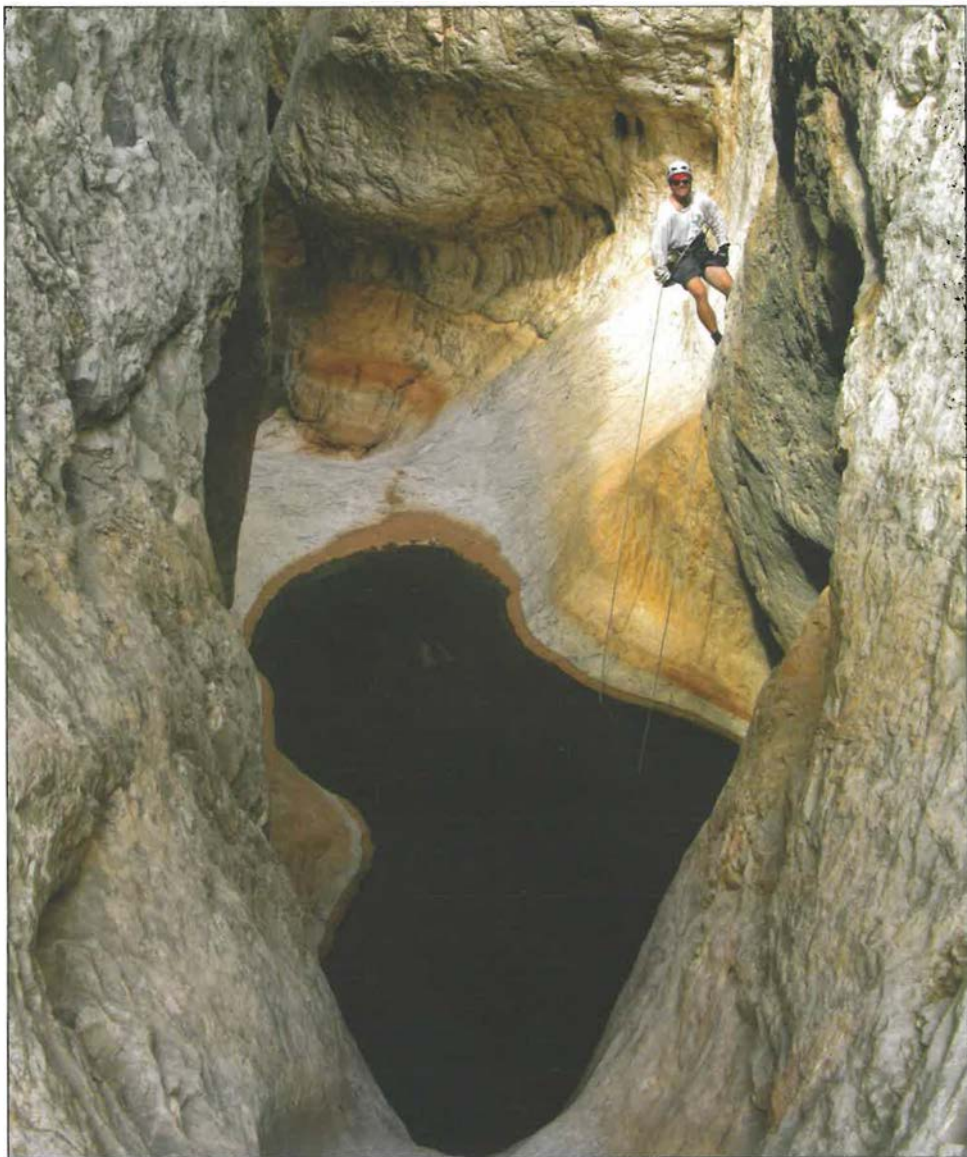
When ready, proceed due east to pick up a well defined hiker trail. The trail begins climbing rather steeply up the slope nearly to the base of the Redwall (remain on the main track, there are several braided trails in the area), at which point it bends north (left) to cross the main fork of Tatahoysa Wash. The path levels out as it winds into, then out of this fork and into the left fork to begin climbing steeply up the slope towards an obvious break in the



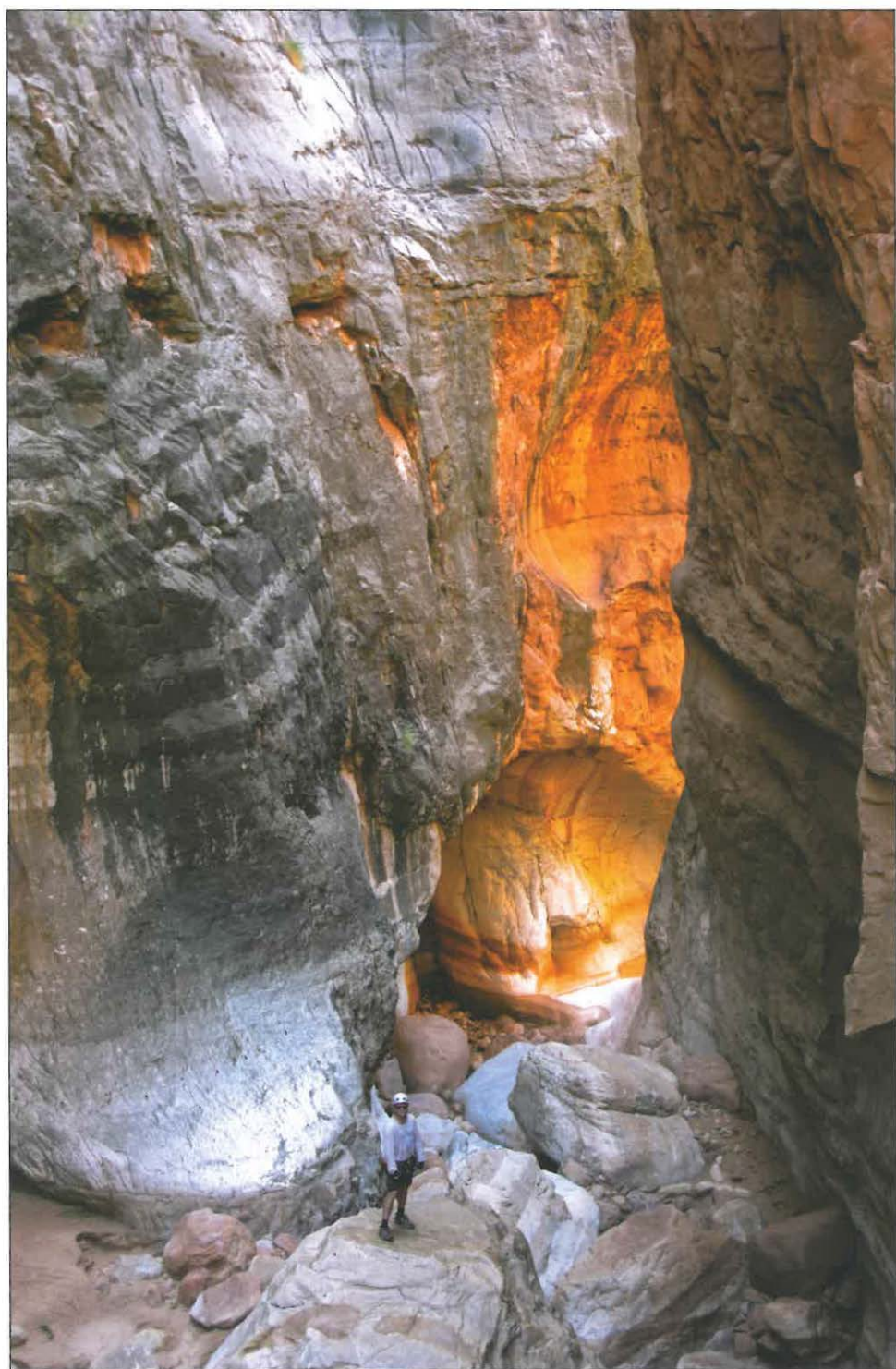
cliffs far above. Though it may not look possible from this vantage point, the route travels straight up and through this break to eventually top out at the canyon rim.

**AUTHOR'S RATING ★★★★★**

The quality of Shinumo Wash left no doubt in my mind that Tatahatso would also be a good canyon. Some queries revealed that the canyon had been descended by Glenn Rink and his friends and provided a modicum of beta with which to plan a descent. Rich Rudow and I then returned to complete the canyon and were not disappointed. We were able to reach the beach at the mouth of Tatahatso in one long day. On the second day we used packrafts to float the river to Eminence Break (4.5 hours) and complete the hike back out to the rim.



*Tatahatso Canyon: Entry Rappel in the Redwall*



*Tatahatso Canyon: Canyon light*









*Scott Patterson rappelling into the Redwall narrows of Buck Farm Canyon*

## 18: *Buck Farm Canyon*

**OVERVIEW:** A remote and challenging technical canyon in the Redwall limestone involving a river crossing and a long car shuttle.

**LOCATION:** Navajo Nation/Grand Canyon National Park. North and South Rims. Use areas: AD9, SF9

**REQUIRED GEAR:** 2x200' ropes, 50' webbing, 6 rap rings, harness, descender, helmet, carabiners, drybag, personal flotation device, packraft and paddle. A wetsuit is required for the raft trip during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available in the Buck Farm Canyon narrows and at the Colorado River. River travel is required in order to complete this trip. This hike requires permits from both the National Park Service and the Navajo Parks and Recreation Department.



**ACA Rating:** 3B VI

**Distance:** ~10 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 5,880 – 2,820 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** Yes

**Maps:** USGS Buffalo Ranch 7.5  
Tatahatso Point 7.5

**Navigation:** Difficult

### *DRIVING DIRECTIONS*

**CAR SPOT:** From Flagstaff, drive north on Highway 89 about 85 miles to the small Navajo Village of Cedar Ridge. At Cedar Ridge, turn left between mileposts 505 and 506 following the sign for the Cedar Ridge Full Gospel Church on Navajo Road 6110 (zero your trip odometer). Ignore the many minor roads branching off along this route. At the 6.9-mile point, stay right on 6110. At the 7.5-mile point, stay left on a somewhat less traveled road to pass a stock pond. Stay to the right at the 8.3 and 8.7-mile marks. At the 9.6-mile point, stay left where the road forks; stay left again at mile 10.3 (right leads towards several hogans and a corral). At the 11.7-mile point stay straight; at 12.9 the road forks, stay right to pass a very large stock pond, which will be on the right. Drive straight across the bowl that forms the stock pond to pick up the road on the other side as it climbs a hill. At the 15.5-mile point, the road forks; stay right. At mile 19, stay right and 0.3 miles later the road begins to descend next to a dry gully. At the 20.7-mile point, you'll arrive at the Eminence Break trailhead and small parking area. UTM: 12S 425447 mE, 4029126 mN, WGS84 Datum.

**TRAILHEAD:** From Flagstaff, drive north on Highway 89 about 85 miles to the small Navajo Village of Cedar Ridge. Continue north on Highway 89. Turn left on Highway 89A towards Jacob Lake and follow it across the Navajo Bridge. Between mileposts 559 and 560, turn left onto House Rock Buffalo Ranch Road (FR #8910). Follow this well graded dirt road for 23 miles to a junction. Stay left, remaining on #8910 as it climbs a low hill. At the 25.4-mile point, you'll reach a 'T' junction and signpost pointing left for Buck Farm Viewpoint (3 miles) and right for FR #8910. Turn right and drive 0.5 miles to a minor left branching side road. Turn left and follow this road 0.3 miles to where it ends at the head of Buck Farm Canyon. UTM: 12S 417625 mE, 4028568 mN, WGS84 Datum.

## TRIP DESCRIPTION

The first challenge Buck Farm presents is to navigate a route down through the Kaibab Limestone. The easiest way is probably to walk the rim a short distance north (left) from the car park to locate a break that leads down the steep slope. There is an 8-foot drop-off right at the top that most will want to use a rope to negotiate. The other entry, for those without a fear of exposure, is to proceed south (right) to the top of the first major drainage of the canyon and head straight down. After some downclimbs, you'll reach a sheer cliff. Travel north (left) to identify a narrow ledge that will lead you around to the same point you would have reached had you come down the first entry route described above.

Now that you're past the Kaibab, begin working your way in a northerly direction as you descend the steep talus slope. Your goal is to identify and reach the one spot where breakdown forms an incline all the way to the top of the Coconino sandstone cliff band. Once you've identified this feature, the route down the scree slope is obvious, though it remains somewhat loose and treacherous, particularly with a heavy pack.

After a descent of the slope, you will find yourself in the right fork of Buck Farm Canyon. Walk down this drainage a short distance, then climb out to the right to work your way up to a flat bench that separates the right and left forks of the canyon. Once on the bench, contour around the bench until you can see the left fork of the canyon.

The next challenge is to find a route down through the Supai into the left fork. The route is complex and since there's no way to describe it, you'll have to figure it out for yourself. One option is to work your way to the head of the canyon, remaining on roughly the same level as the bench on which you have been traveling. There is also a break in the Supai that can be descended prior to reaching the head of the fork. This latter course requires some route-finding, climbing and walking along somewhat exposed ledges.

Once you've managed a route through the Supai into the left fork, simply head downcanyon. Several pour-offs exist that may be skirted on one side of the canyon or the other, but no major obstacles. When you reach the Redwall narrows of the left fork, it's time to change forks once again. Head left, up and out of the drainage and follow the bench around and down into the right fork once again.

The technical challenges begin! The first rappel is 35 feet from an overhung chockstone wedged at the top of the drop. Rappel #2 is a short distance beyond and consists of a 60-foot double drop from a piece of rebar (left by dam builders) on the right. Just below is a 40-foot rappel into a pool from a chockstone on the right. After pulling your rope, walk around a corner to a 160-foot rappel from 2 bolts located on a large chockstone at the top of the drop. This rappel will take you down a series of smaller drops to a scenic striped corridor. Complete a few minor downclimbs to reach rappel #5 to the junction of the left and right forks of the canyon. This final rap is 60 feet from two bolts on the left.

Remove your harness and continue downcanyon, soon reaching flowing water from a few small seeps. A river-runner trail is occasionally visible on the right side of the canyon. After a bit of hiking, you'll arrive at a small drop into narrows formed in the Muav Limestone. A hiker's trail leads around this section on the right, but since you're carrying rope anyway, I suggest remaining in the streambed and performing a short 15-foot rap into these scenic narrows. If you choose this latter route, there is one tricky downclimb at a chockstone that requires a belay or someone with the ability to perform a rather wide stemming move. All too soon the Muav narrows end, and it's an easy walk the remainder



of the way to the Colorado River and a beach featuring many good campsites.

*Note: The following section is described as a hike along the riverbank, with one river crossing. Those with packrafts may wish to float the entire section. Be sure to take out and portage the rapids at the first un-named drainage below Buck Farm (take out on the right), and President Harding Rapids (take out on the left). Pull into shore on the left a safe distance upriver from the next set of rapids below President Harding Rapid at UTM: 12S 423962 mE, 4027290 mN, WGS84 Datum.*

Heading downriver on foot, there is a hiker trail that leads down to an un-named drainage that comes in on the right. Some are calling this drainage “Bert’s Canyon” after long time river runner Bert Loper who lost his life near here at age 79 while running the Colorado (I’m not a big fan of naming places after people, call it a pet peeve, so let’s call it an “un-named drainage”). A short side trip up this un-named drainage via a well trodden trail to a pretty trickling falls is well worth the effort.

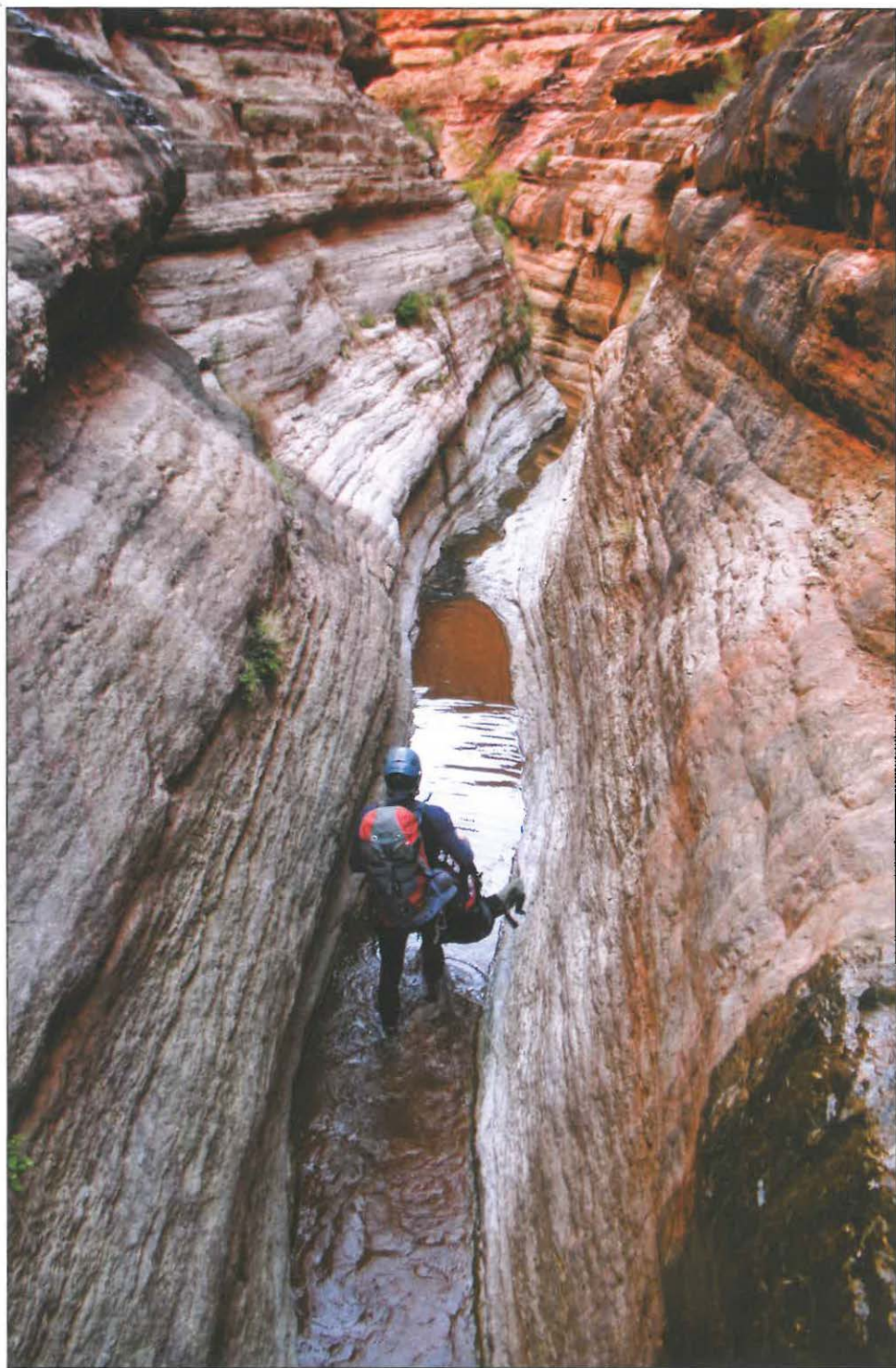
Continue downcanyon past the Royal Arches (some rather unimpressive alcoves), choosing a path of least resistance, which is usually on the slope above the thick stands of tamarisk lining the riverbank. You’ll now want to start thinking about putting the raft you’ve been carrying all this time to use by crossing the river, which is smooth along this section. The exact crossing point is arbitrary (we crossed just upriver from an abandoned weather station (well above President Harding Rapids) and had little difficulty. Inflate your raft, waterproof your pack, don your personal flotation device and wetsuit and prepare to cross the mighty Colorado. A good technique is to keep the nose of your small craft pointed at a 45-degree angle upstream (to minimize the surface area exposed to the current) and paddle gently towards the opposite bank.

Once on the opposite bank, continue downriver, thrashing through a few very unpleasant stands of tamarisk as you proceed. Your destination is the large beach just below the un-named rapid below President Harding Rapids (the second major set of whitewater) at UTM: 12S 423962 mE, 4027290 mN, WGS84 Datum. Camping is widely available in the area.

When ready, proceed due east to pick up a well defined hiker trail. The trail begins climbing rather steeply up the slope nearly to the base of the Redwall (remain on the main track, there are several braided trails in the area), at which point it bends north (left) to cross the main fork of Tatahoysa Wash. The path levels out as it winds into, then out of this fork and into the left fork to begin climbing steeply up the slope towards an obvious break in the cliffs far above. Though it may not look possible from this vantage point, the route leads straight up and through this break to eventually top out at the canyon rim and the vehicle you spotted earlier.

### **AUTHOR’S RATING ★★★★★**

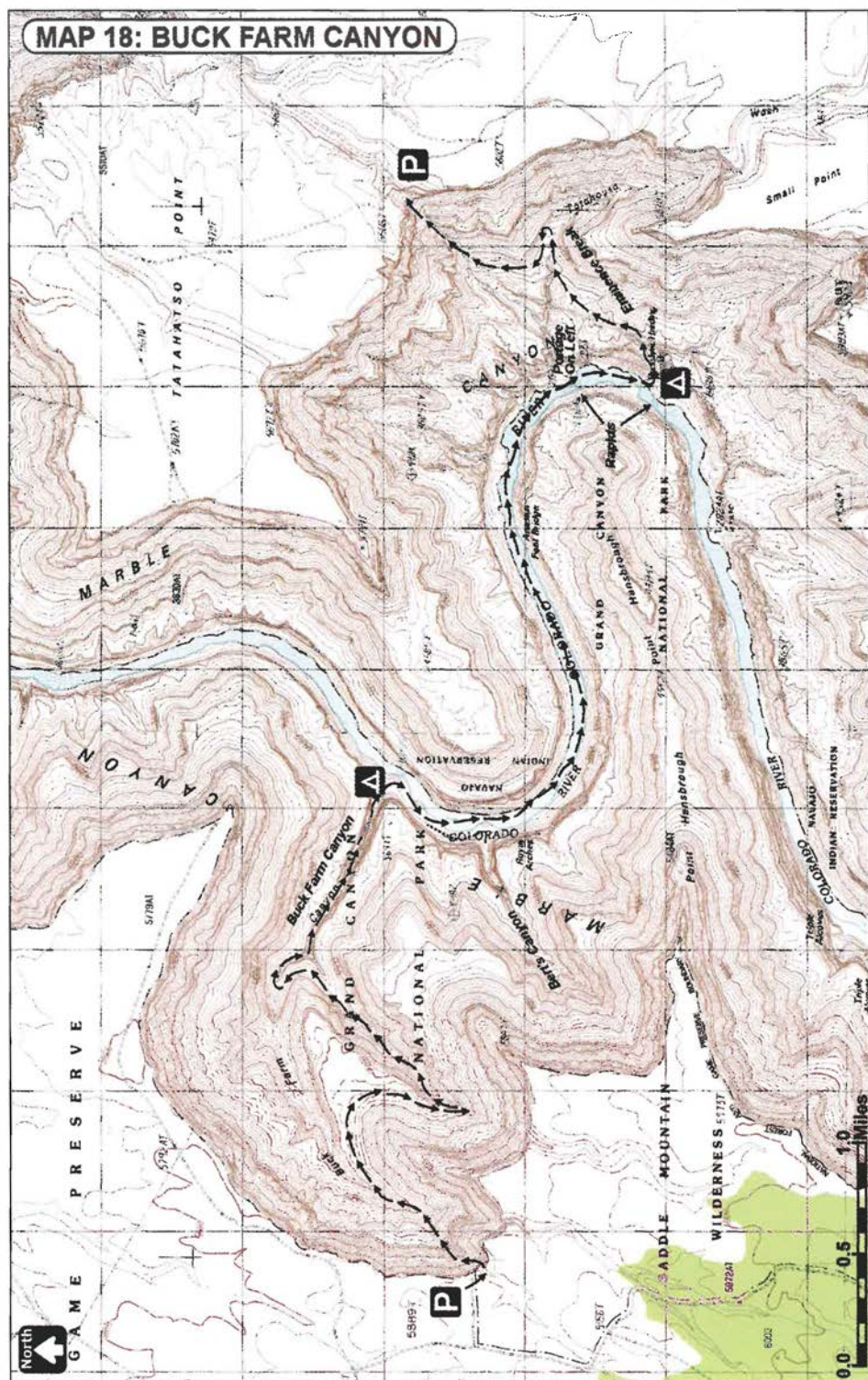
It took me several attempts to finally complete this trip. The first obstacle was simply finding a route down into Buck Farm itself. Marble Canyon is extremely rugged and rather intimidating in this area. With a few exploratory trips under my belt and the route confirmed, I returned with a strong group of hikers to complete the canyon. In order to shave the amount of weight we had to carry, we brought one boat for the group and a modified fishing reel equipped with 700 feet of 135-pound-test fishing line. With the line attached to the boat, one member of the team would paddle across the river. The boat was then reeled in and prepared for the next member. The hike was completed in two days, with one night spent on the beach at the mouth of Buck Farm. Afterwards, we all wished we had taken an extra day and camped at the President Harding Rapid, so that we would awake fresh for the steep ascent to the rim (in the shade) the next morning.



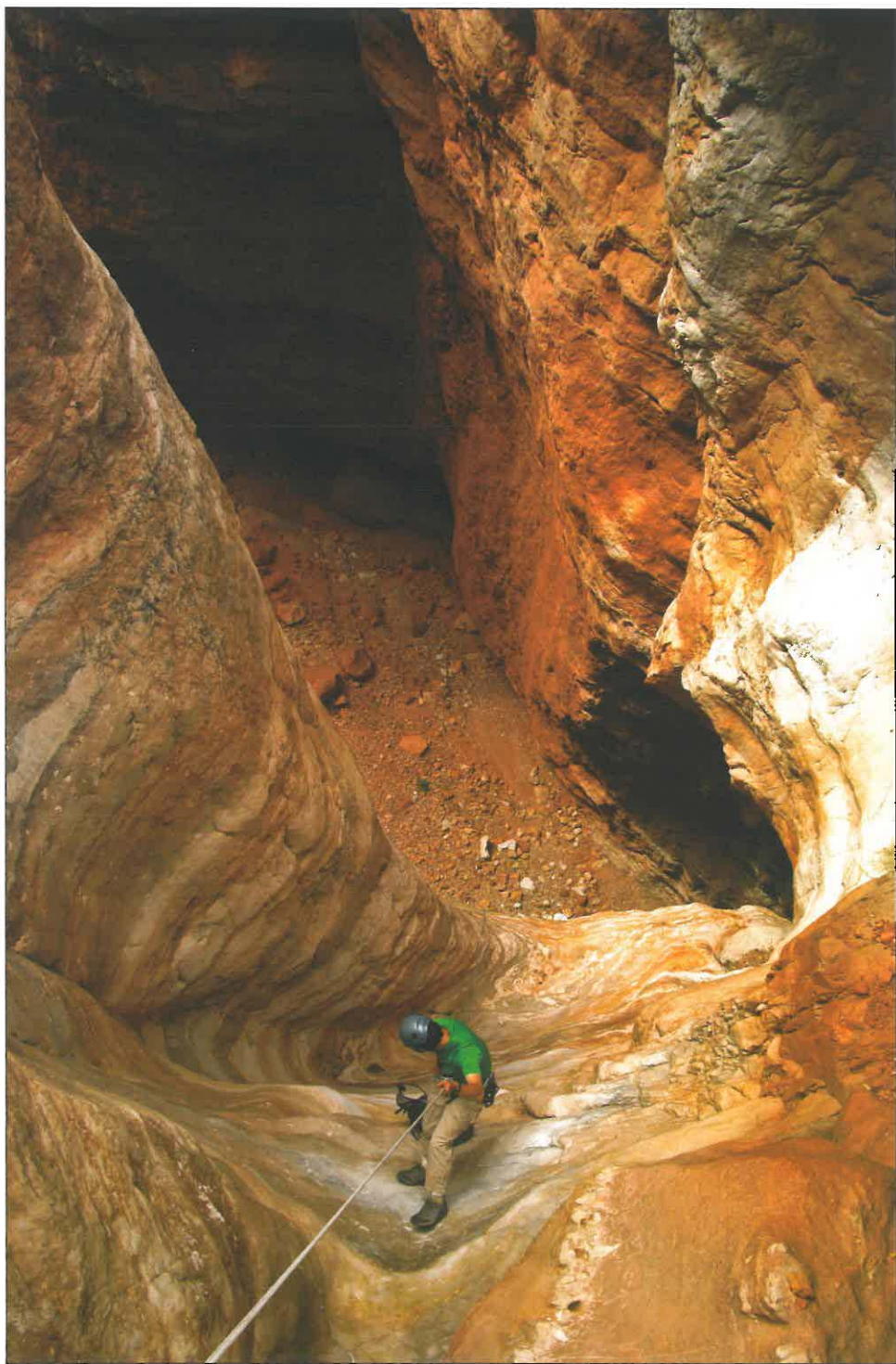
*Muay narrows in lower Buck Farm*



MAP 18: BUCK FARM CANYON







*The scenic 150-foot rappel in Tutaahoyse Wash*

## 19: Tatahoysa Wash

**OVERVIEW:** A long canyoneering dayhike, or more casual overnight trip, featuring a pretty canyon and interesting double arch.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use area: SF9

**REQUIRED GEAR:** 2x150' ropes, 50' webbing, 6 rap rings, harness, descender, helmet, carabiners, and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. This canyon requires good natural anchor skills and a permit from the Navajo Parks and Recreation Department. Overnight stays will require a permit from the National Park Service.



**ACA Rating:** 3A IV-V

**Distance:** 4.0 miles

**Physical Difficulty:** Very Strenuous

**Elevation:** 5,690 – 2,820 ft.

**Time Needed:** 7 – 11 hours (1 – 2 days)

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Tatahatso Point 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89 about 85 miles to the small Navajo Village of Cedar Ridge. At Cedar Ridge, turn left between mileposts 505 and 506 following the sign for the Cedar Ridge Full Gospel Church on Navajo Road 6110 (zero your trip odometer). Ignore the many minor roads branching off along this route. At the 6.9-mile point, stay right on 6110. At the 7.5-mile point, stay left on a somewhat less traveled road to pass a stock pond. Stay to the right at the 8.3 and 8.7-mile marks. At the 9.6-mile point, stay left where the road forks; stay left again at mile 10.3 (right leads towards several hogans and a corral). At the 11.7-mile point stay straight; at 12.9 the road forks, stay right to pass a very large stock pond, which will be on the right. Drive straight across the bowl that forms the stock pond to pick up the road on the other side as it climbs a hill. At the 15.5-mile point, the road forks; stay right. At mile 19, stay right and 0.3 miles later, the road begins to descend next to a dry gully. At the 20.7-mile point, you'll arrive at the Eminence Break trailhead and small parking area. UTM: 12S 425447 mE, 4029126 mN, WGS84 Datum.

### TRIP DESCRIPTION

From the car park, continue along the road a short distance to the break in the cliff on the left, which marks the start of the Eminence Break Route. Be sure to select the correct cleft in the limestone to begin the descent, the correct one is on the left and is marked by several large cairns. The route travels straight down the steep ravine through the Kaibab, Toroweap, Coconino and Hermit layers. Upon reaching the Supai, the route bends left (look for cairns) where it negotiates a few ledges before descending at a somewhat less aggressive angle as it contours the hillside to the south. Eventually, the trail drops down to cross the south fork of Tatahoysa at the top of the Redwall.

Leave the trail to enter the drainage. A short distance below the trail, you'll arrive at a dryfall that requires rope to descend. The drop is 70 feet in length using a rock wedged under a shelf on the left as an anchor. Rappel #2 is just beyond and is 40 feet in length over a large chockstone from a rock wedged in a crack on the right. After passing an interesting double arch that will be on the left, you'll reach a chute that most will want to rappel; however, good climbers may be able to skirt the obstacle by climbing around on the right then down just below a pothole (the latter requires a dynamic maneuver to descend the last few feet). Another drop is found just below and is 135 feet in length using a pinch point on the left as an anchor. The drainage becomes somewhat wide and shallow before arriving at the confluence with the south fork of the canyon, which appears to be possible to descend without rope.

Below the confluence, you'll soon arrive at a scenic 150-foot rappel using a constructed rock pile located just behind the chockstone at the top of the drop. Head around a corner and climb down a chute to arrive at a 110-foot drop using webbing threaded through a small natural arch located up on a shelf on the left. A short distance below, you'll arrive at the final rappel which is 150 feet in length. We used a knot-chock in a crack on the right as an anchor, but there are other alternatives to choose from. After pulling the rope, remove your harness and hike the riverbank downstream to the beach at the next set of rapids below President Harding Rapid at UTM: 12S 423962 mE, 4027290 mN, WGS84 Datum.

When ready, head due east to pick up a well defined hiker trail. The trail begins climbing rather steeply up the slope nearly to the base of the Redwall (remain on the main track, there are several braided trails in the area), at which point it bends north (left) to cross the main fork of Tatahoysa Wash. Take a short detour to retrieve your anchor at the first drop before retracing your steps the remainder of the way to the canyon rim.

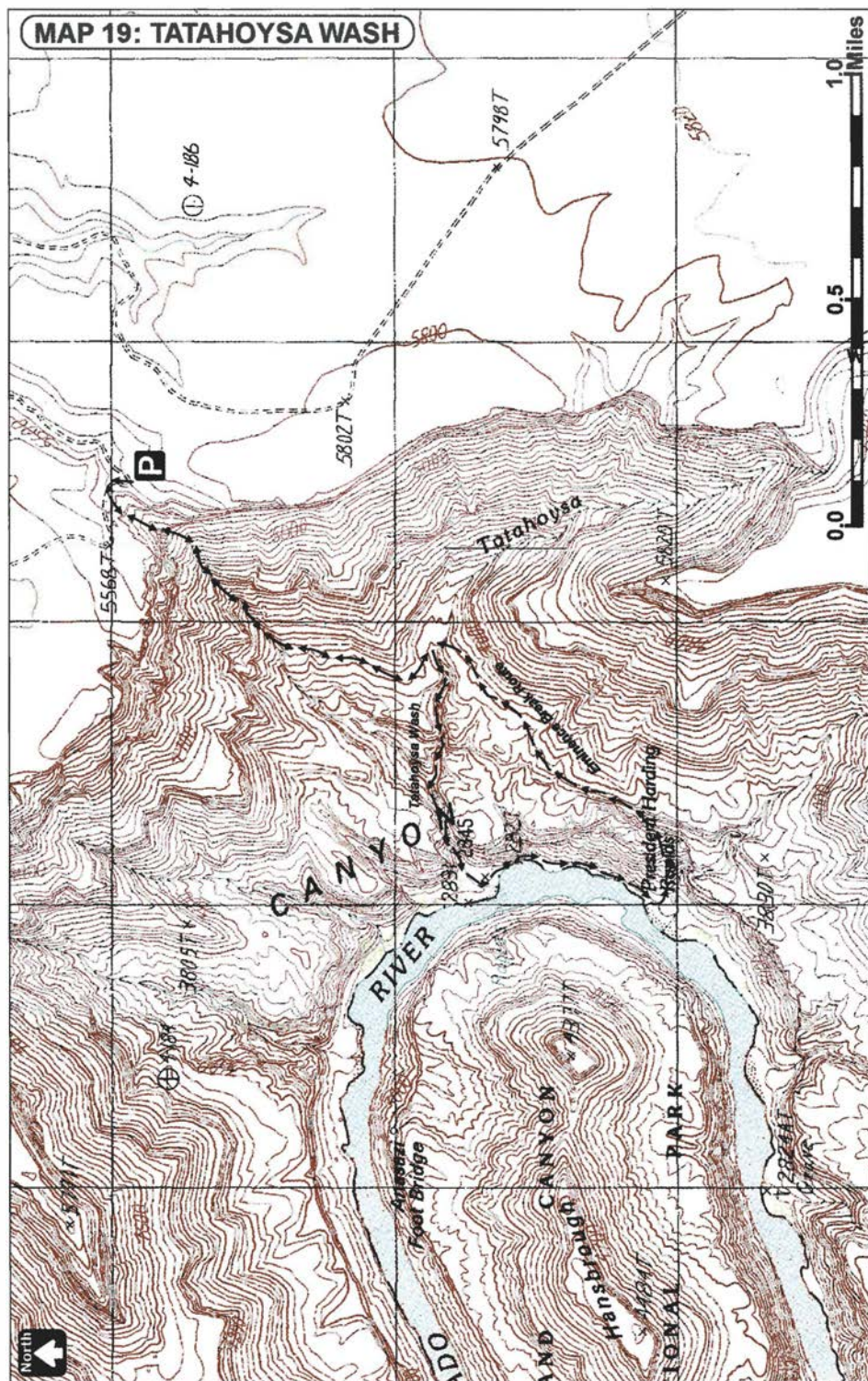
### *AUTHOR'S RATING* ★★★

Aaron Locander and I completed the canyon in about 7 hours. We found a constructed rock pile at the junction of the two upper arms, which seemed to indicate that a hiking route exists down the northern fork of the drainage.

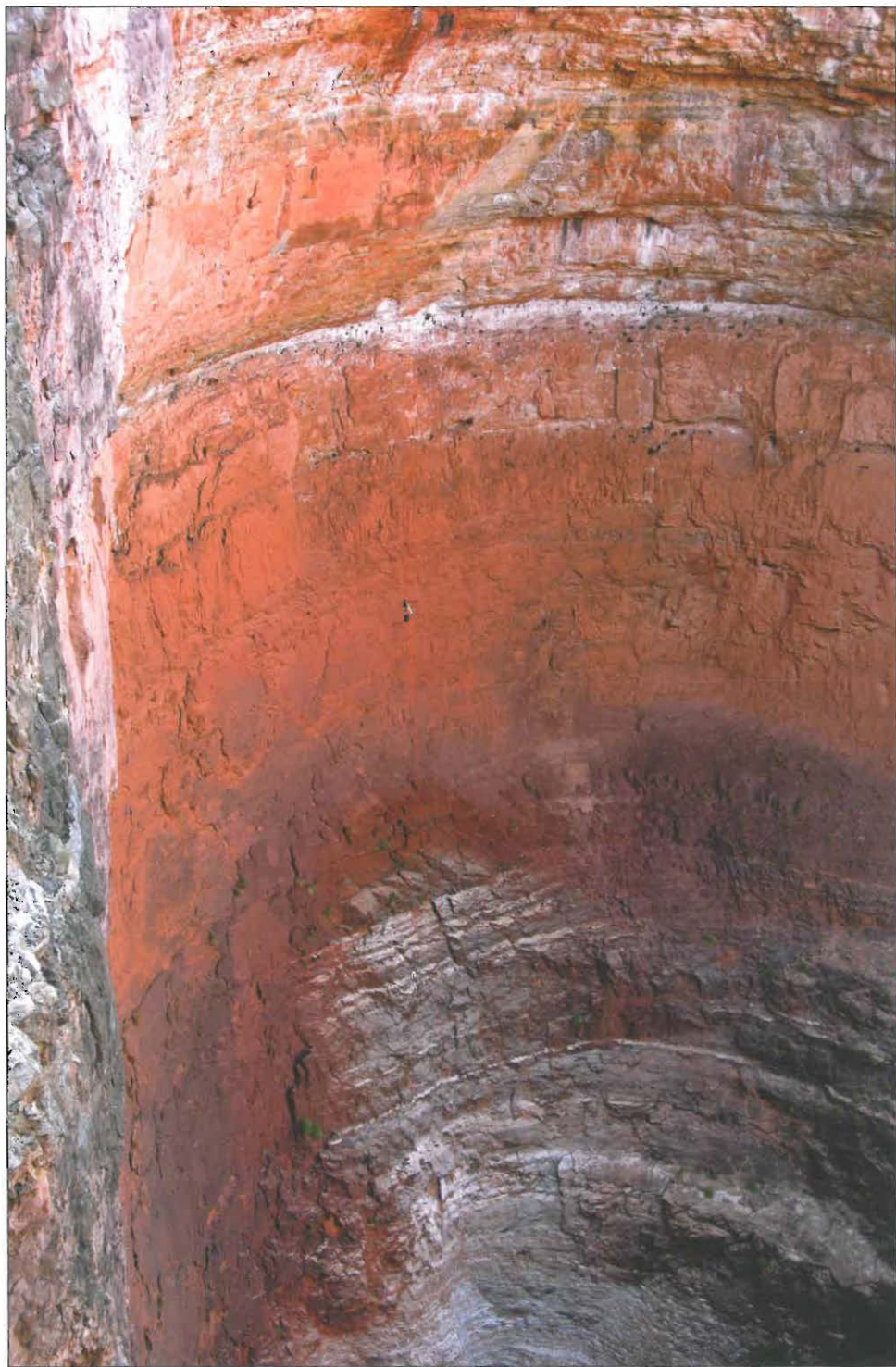


*Tatahoysa Wash*









*The big drop in Saddle Canyon and the relatively tiny canyoner*

## 20: Saddle Canyon (River-Mile 47)

**OVERVIEW:** A remote and seldom traveled canyoneering loop hike through Saddle Canyon, which features a very big rappel and some nice narrows, returning via the Nankoweap Trail. This hike is described using a packraft to float the river from Saddle to Nankoweap. In his book, Harvey Butchart describes hiking the north bank of the river between these two canyons. This latter route, which I have not done, would avoid the need for rafts.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AD9

**REQUIRED GEAR:** 1x400' rope, 2x200' ropes, 100' webbing, 3 rap rings, harness, descender, helmet, carabiners, drybag, shoes with good traction, packraft, paddle and personal floatation device. A wetsuit is required for the raft trip during cooler weather. A pair of 2-way radios will aid communication at the big drop.

**SPECIAL CONSIDERATIONS:** Water is available below the big drop in Saddle Canyon, at the Colorado River and in Nankoweap Creek. A very large 2-stage rappel is required to complete this canyon. River travel is required in order to complete this trip. The best exit is at Nankoweap, which lies about 5 miles downriver. This hike requires a permit from the National Park Service.



**ACA Rating:** 4B R VI

**Distance:** ~24 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 6,480 – 2,820 ft.

**Time Needed:** 3 – 5 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Point Imperial  
Nankoweap Mesa 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

The hike starts at the Buffalo Ranch Road Trailhead. Drive on Highway 89A to between mileposts 559 and 560 to the sign for the well graded, dirt House Rock Buffalo Ranch Road (FR #8910, *Note: this road was formerly labeled FR #445 and the directions you receive from the Park Service with your permit persist with this naming convention*). Head south on #8910 and drive for about 28 miles (near the end, remain on the right-hand fork of FR #445) until you reach the sign for Saddle Mountain Trail (located on the right). A small parking and camping area is located on the left side of the road.

### TRIP DESCRIPTION

From the car park, walk east continuing down the road for 5 minutes then leave the road to the right heading due south. After a short cross-country hike, you'll drop into and climb out of a minor drainage. Soon thereafter, you'll arrive at the much deeper drainage of Saddle Canyon. Choose the path of least resistance to work your way down into the canyon, avoiding any minor cliffs you may encounter along the way.



Once in the drainage, simply head downcanyon, which is rather brushy in the upper portion. After some hiking, you'll arrive at a dryfall in the Toroweap that requires rope to descend. The rappel is 90 feet in length from a single old bolt and hanger on canyon right (*Note: we backed this marginal anchor up with a constructed rock pile*).

Continue downcanyon, avoiding minor pour-offs where necessary, including one particularly annoying obstacle that required a push through the brush on the left, followed by a downclimb using a tree. The brush abates as you enter the Coconino layer and arrive at the next rappel, a 140-foot drop from a boulder on a ledge on the left, high above the watercourse. Just beyond is rappel #3, which is 45 feet in length through the branches of a tree from a constructed rock pile followed soon thereafter by a 160-foot rappel from a solid tree located on the right a short distance back from the edge of the drop.

After pulling the rope, remove your harness and rock-hop downcanyon to eventually arrive at the big drop at the top of the Redwall. The anchor for the rappel is a chockstone located right at the top of the drop. The first stage of the rappel is about 385 feet in length, about two-thirds of which is free hanging. The destination for the first stage of the rappel is a fairly wide ledge which is located about 60 feet above the canyon floor. Having a pair of radios will aid communication and one member of the party may wish to hike over to a small pour-off to the southeast to observe the progress of the first few members of the group. Once all members have arrived at the ledge, pull the rope and rappel 60 feet from a pair of bolts and hangers to the canyon floor.

*Note: If for some reason the big drop is unappealing and you choose to bail from the trip, it is possible to hike downriver on the top of the Redwall for 4.0 miles to a fault at river-mile 49.9, which allows access to the river. You can either climb down and follow the river or remain on top of the Redwall the remaining distance to Nankoweap Creek and the trail out. (Steck and Butchart both describe this route; I have not hiked it myself).*

Proceeding downcanyon, there are several small pour-offs that are possible to descend without a rope (though some individuals may wish a belay). Eventually, you will arrive at point where the canyon forms a series of small waterfalls that must be rappelled. You can either follow the watercourse and rap directly down the falls, or if you'd prefer to remain somewhat dry, hike the right rim of the slot a short distance below the falls and choose a large boulder on the rim from which to rappel back into the canyon. *Note: Our party chose the latter and the rappel was exactly 100 feet.*

You'll now find yourself in a very pleasant, if short, set of narrows with a flowing stream. After a short hike and downclimb, the canyon widens and a trail created by river rafters appears. Hike downcanyon along the well trodden path on one side of the stream or the other. Keep your eyes open for cairns that mark the trail's departure from the creek bottom up to the right (facing downcanyon). The path climbs a short distance along the right bank then contours along the hillside for some distance before dropping down again at the mouth of Saddle Canyon. Good campsites exist on the beach, both at the mouth of the canyon and a short distance downriver.

The next challenge is to get to Nankoweap Creek, which lies about 5 river-miles down the Colorado. There are two means to accomplish this task; the first (and least enjoyable) is to commit to a grueling boulder hop and thrash through the tamarisk along the river. The second is to carry an inflatable packraft and use it to float the river. Be aware that at least one large rapid located at UTM: 12S 421495 mE, 4023615 mN, WGS84 Datum could

prove unsafe to navigate in a packraft. This can be portaged by coming ashore above the rapid on the right and carrying the raft downriver to a safe put-in point. Other rapids may, or may not, be safe to run depending on water levels. Be sure to scout any whitewater from shore before attempting to run it. Upon arriving at Nankoweap Creek, pull into land on the right just upriver from the rapid and walk the shore to where creek enters the river. Camping is available on the beaches just downriver from the mouth of the creek.

When ready, stock up on water and begin the 14.5-mile trek up the creekbed and back to your car. As you travel up the drainage some trails may be seen on the left side of the creekbed. They lead down to river-side campsites and up to the often visited Nankoweap granaries. To visit the granaries, pick up one of these trails, remaining to the right at any trail junctions to complete a steep climb to these much photographed ruins (and the only ones that I'll mention in this book).

Continue upcanyon for about 3 miles keeping your eyes open for a campsite in a cottonwood cluster on the right and a cairned trail (UTM: 12S 420119 mE, 4015554 mN, WGS84 Datum). The path climbs out of the drainage on the right behind the camp to begin winding through the black brush, ascending moderately through low hills. The path then climbs at a considerably steeper pitch as it ascends to eventually reach the ridge of Tilted Mesa at the top of the Redwall.

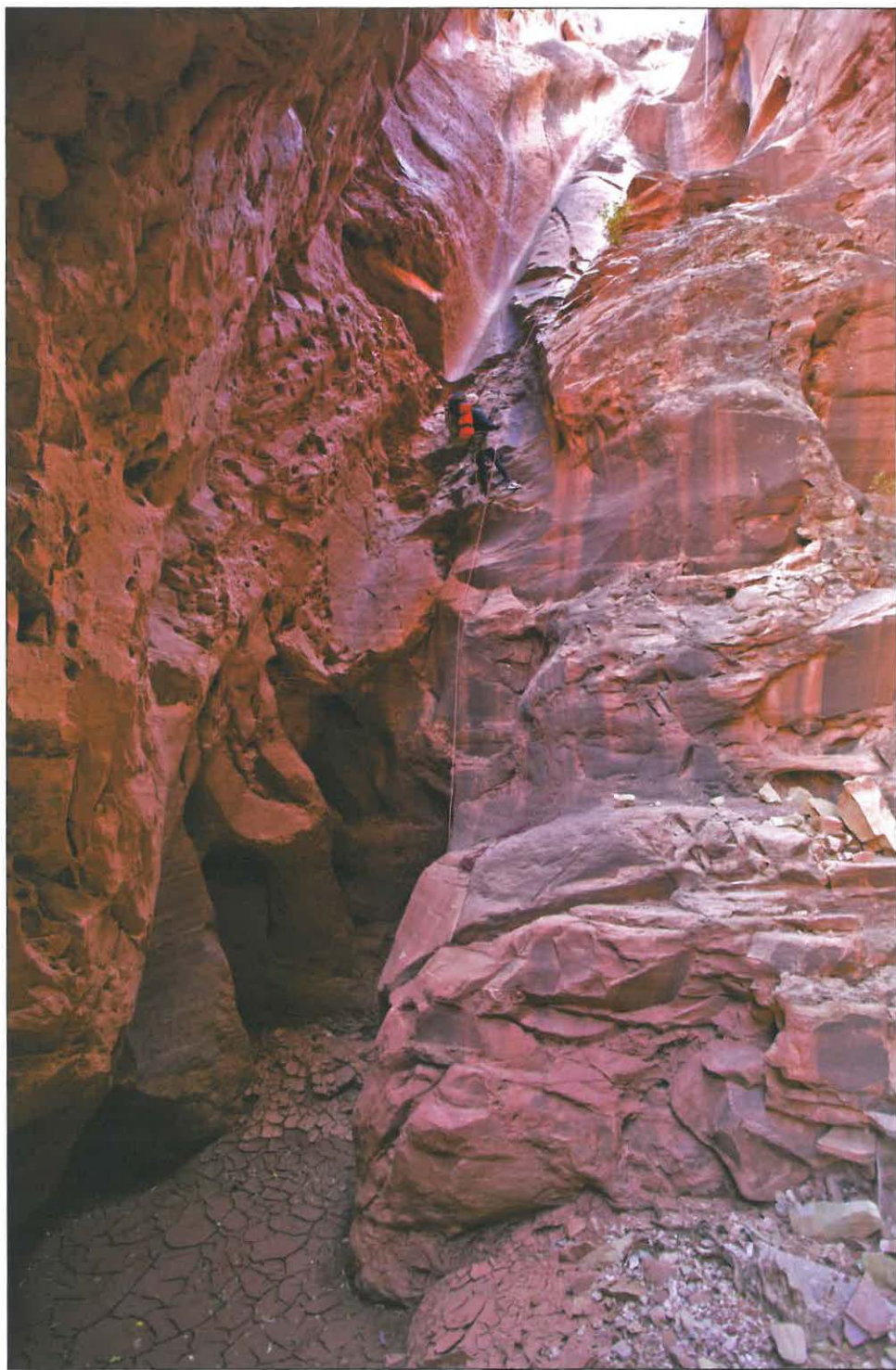
The trail follows the ridge at a more gentle grade as it travels to the west to then contours along the top of the Supai into a shaded alcove, then out again to arrive at Marion Point (which has several nice, if dry, campsites). The route continues around the point and resumes contouring in a westerly direction towards the head of Nankoweap Canyon. Just before reaching the headwall, the path bends to the right and climbs steeply up and out of the canyon to a signed junction with Trail #57 and the Grand Canyon NP boundary in the forests above.

The left branch of Trail #57 climbs up to Forest Road #610, the right branch leads to the Buffalo Ranch Road Trailhead and your vehicle. Turn right and follow the path as it travels through the forest a short distance before beginning a long, rocky descent into the dry bed of upper Saddle Canyon. After some hiking, you will reach a sign for Saddle Mountain Trail #31, #57 to Marble Canyon and Mankoweap (yes, it's spelled with a capital "M"). Trail #31 branches right; however, we'll remain on Trail #57 as it climbs up and out of Saddle canyon to the left.

The trail tops out on a juniper dotted ridge, which becomes an old road as it descends moderately with views to the east of Shinumo Alter on the other side of the river. A bit of hiking will bring you back to the Buffalo Ranch Road Trailhead and your vehicle.

### **AUTHOR'S RATING ★★★**

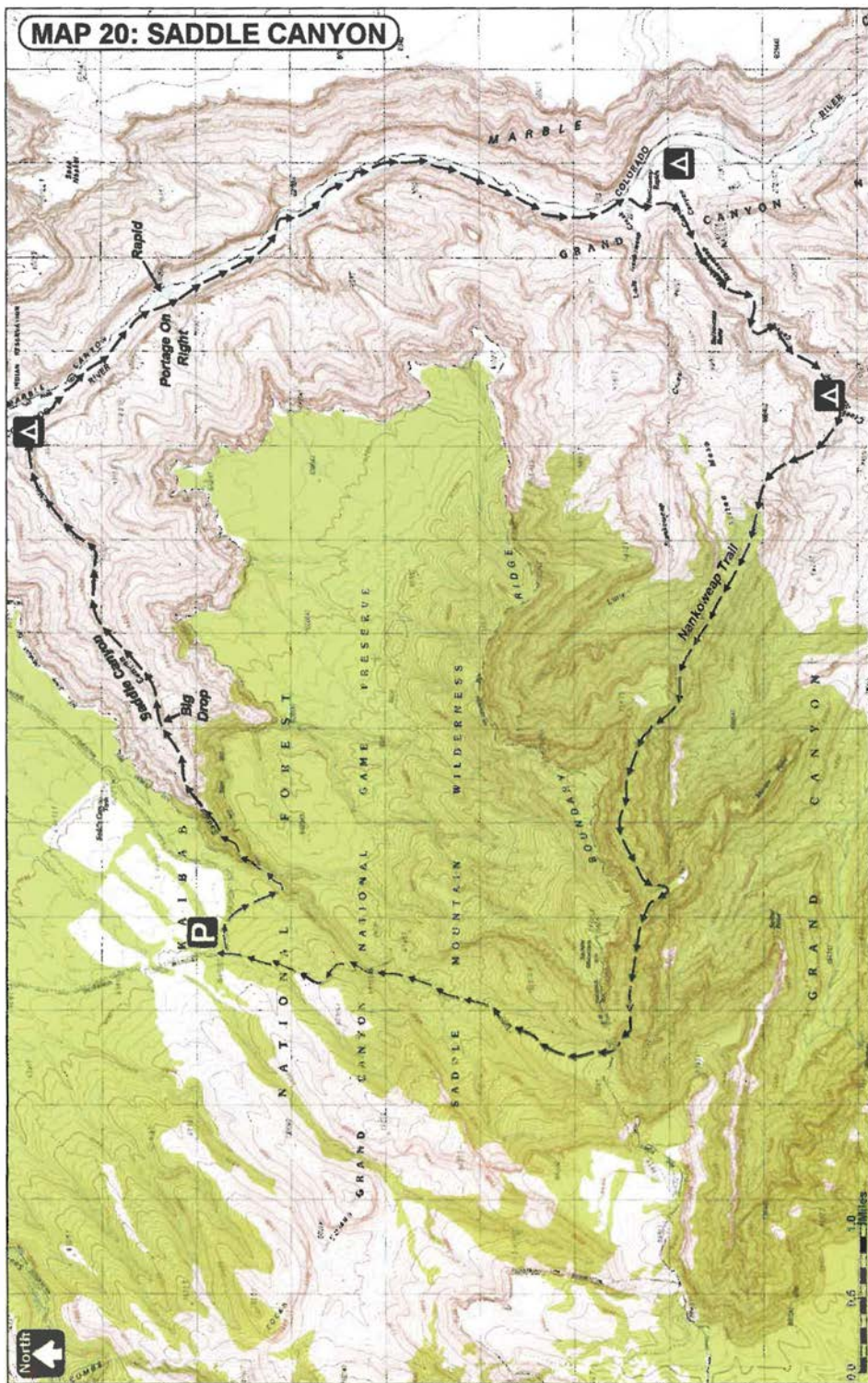
I had originally planned to do this trip in the spring, but no one in the group felt like carrying the 350-foot rope we had with us at the time and we went elsewhere. This turned out to be the right decision, though for the wrong reason. Returning in the fall with a different group, I carried what was thought to be a conservatively sized 400-foot rope to tackle the big Redwall drop (which none of us had actually seen). A few expletives were softly spoken upon first sight of the wall, which was scouted from several different angles from the rim. Zooming in with a digital camera, we realized we could make a small ledge far below and use it as a stage for the remainder of the descent. We made it to the mouth of Saddle Canyon well after dark, 13 hours after leaving the rim. The next day we floated to Nankoweap, and we were able to hike out (after dark once again) in 12 hours.



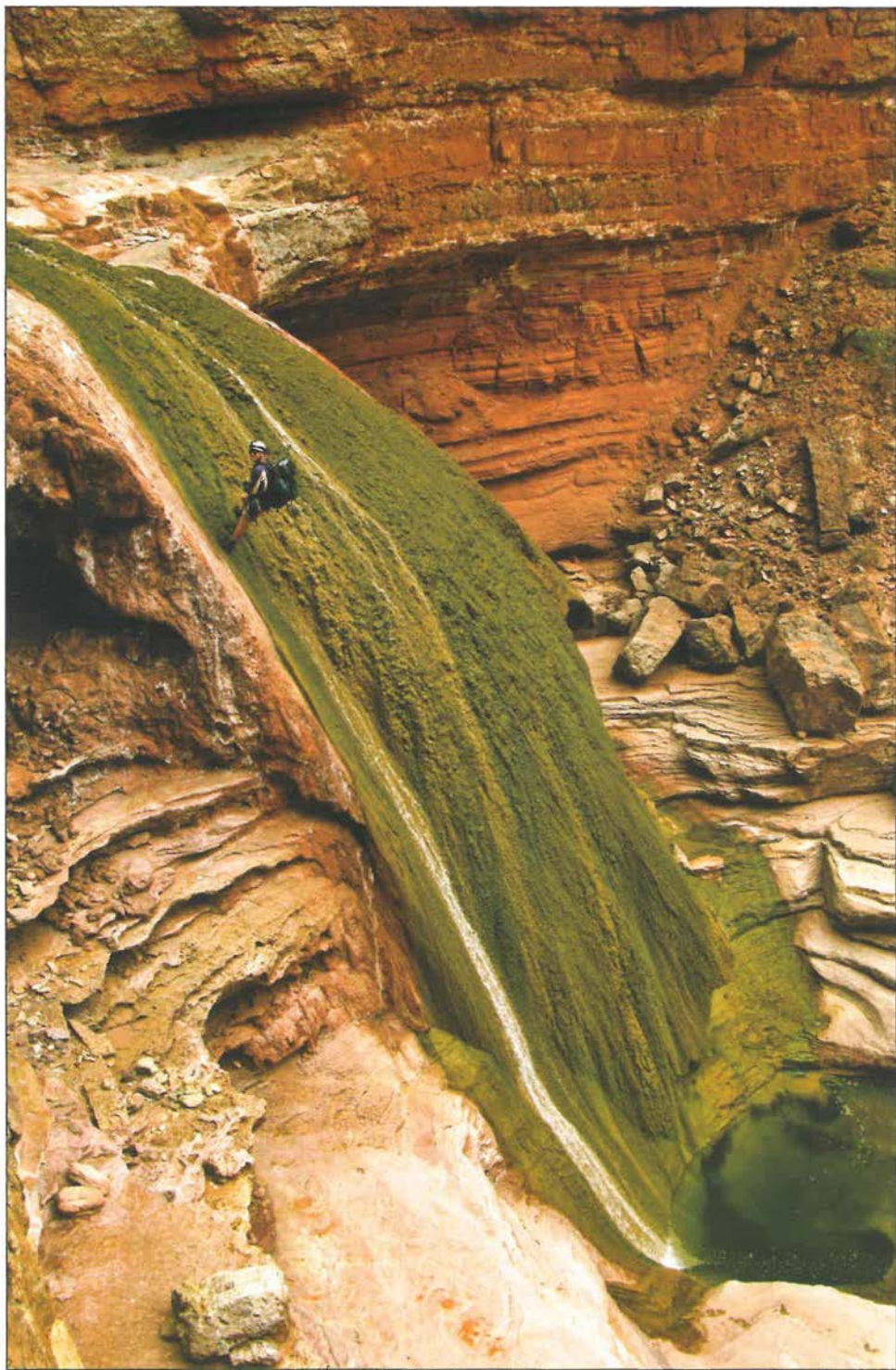
*Rappelling in the Coconino of Saddle Canyon (Photo by Tom Wetherell)*



## MAP 20: SADDLE CANYON







*Travertine falls in Big Canyon*

21: Little Colorado River Gorge Tributaries

**OVERVIEW:** This description features some interesting canyoneering routes descending tributaries of the Little Colorado River Gorge including Waterhole Canyon, Big Canyon and technical and non-technical routes down Salt Trail Canyon. The latter features what may be the largest keeper pothole in all of the Grand Canyon.

**LOCATION:** Navajo Nation. South Rim.

**REQUIRED GEAR:** **Waterhole Canyon:** 2x150' ropes, 30' webbing, 4 rap rings; **Big Canyon:** 1x200' ropes (or 2x100' ropes), 40' webbing, 5 rap rings and a wetsuit during cooler weather; **Salt Trail Canyon (direct):** 2x150' ropes, 50' webbing, 8 rap rings and pothole escape gear (throw bags, Imlay Happy Hooker and 2–3 etriers recommended); **plus:** harness, descender, helmet, carabiners, drybag, and shoes with good traction. No specialized gear is required to descend the hiker's trail in **Salt Trail Canyon**.

**SPECIAL CONSIDERATIONS:** Water may be found in Waterhole Canyon, and lower Big Canyon. Water of varying quality (bad and worse) is available in the Little Colorado River, though it is highly mineralized below Blue Spring. Waterhole, Big and Salt Trail Canyons require good natural anchor and climbing skills and you'll need to keep camping gear dry through the pools in the canyons. These hikes require a permit from the Navajo Parks and Recreation Department. ⚠️**WARNINGS**⚠️ Salt Trail Canyon has a very large and deep keeper pothole and should only be attempted by experienced canyoneers. Big Canyon drains a very large area and should not be attempted if heavy rains are in the forecast.



<b>ACA Rating:</b> See below	<b>Distance:</b> Variable
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 5,400 – 2,700 ft.
<b>Time Needed:</b> 1 – 2 days each	<b>Best Time of Year:</b> Fall, Winter, Spring
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> Optional
<b>Maps:</b> USGS Coconino Point, Hellhole Bend, Blue Spring, Salt Trail Canyon, Cape Solitude 7.5	<b>Navigation:</b> Moderate

DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89 to Cameron. Stop in at the Navajo Parks and Recreation Office located on the left just before the junction with Highway 64 and pick up a Navajo hiking permit.

**WATERHOLE CANYON:** Continue north on Highway 89 about 1 mile past the junction with Highway 160 to between mile markers 482 and 483 and turn left (west) on Navajo Road 6134 just before reaching a large butte. Follow #6134 for 14.2 miles ignoring any minor roads that branch to one side or the other to reach a junction with Navajo Road 6133.

**Car Spot:** To spot a car at the Horse Trail exit, turn left onto Navajo Road 6133, then immediately turn right onto an un-named dirt track. Continue for 0.8 miles to a fork in the road. Stay to the right and follow the road a short distance to the end at the rim of the canyon at GPS Point - UTM: 12S 441886 mE, 3995030 mN, WGS84 Datum.



**Trailhead:** To get to Waterhole Canyon, turn left onto Navajo Road 6133 and drive 0.7 miles to an unmarked dirt road on the right. Turn right and stay on the main track for 0.6 miles to a fork. Stay right at the fork and drive another 0.2 miles to another road junction. Right will take you to a hogan, we'll turn left and then immediately left again, remaining on the main track. Follow this road another 0.6 miles to park at UTM: 12S 443305 mE, 3993482 mN, WGS84 Datum. Waterhole Canyon lies directly to the south; while a small tributary arm that we'll use to gain entry to the canyon may be found to the east.

**BIG CANYON - Entry 1 (Salt Trail):** Follow the directions below to the parking area for Salt Trail Canyon. You may either start the hike from here, or spot a car here then use the Big Canyon entry below.

**Entry 2 (Big Canyon):** Drive north from Salt Trail Canyon for 0.3 miles and turn right. At mile point 0.8, stay right to bypass a hogan and corral that will be on the left and ignore a road that branches right immediately afterwards to remain on the main track. At the 1.6-mile point the road crosses a wash then forks. Take either of the right-hand forks (they both lead to the same place) and drive another tenth of a mile to a road that cuts sharply back to the right. Turn right and follow this road to the 1.9-mile mark and stay left at the fork then straight at the 2.0-mile point where a road branches right. At mile 2.6, the road climbs a hill to arrive at a 5-way intersection. Take the road in the 2-o'clock position (the second on the right). Assuming you're on the right track, you'll pass some large cairns at the 4.9-mile point. At the 5.5 mile mark look for a faint road that branches left. Turn left and follow this track 0.6 miles to its end at UTM: 12S 440912 mE, 4004748 mN, WGS84 Datum.

**SALT TRAIL CANYON - Route 1 (shorter from the south):** Continue north on Highway 89 between mile markers 487 and 488 and turn left (west) on Navajo Road 6133 and zero your odometer. Numerous minor roads branch off of this main thoroughfare, simply stay on the main road at any junctions. Drive for 10.9 miles and turn right onto Navajo Road 6132. The road crosses dry washes at mile points 11.8, 12.9 and 13.7 before reaching a junction with Navajo Road 6130 at mile point 14.7. Turn left on Navajo Road 6130.

**Route 2 (shorter from the north):** From Page, travel south on Highway 89 to between mile markers 499 and 500 and turn right (west) on Navajo Road 6130 and zero your odometer. The road forks at the 1.3-mile point stay right on the main road. Stay straight at the 1.9-mile point to soon pass an old cattle crossing sign. At the 5.8 mile mark, stay to the right where the road forks to eventually drop down and cross a dry wash. At the 9.2-mile point you'll arrive at a junction with Navajo Road 6132, which branches left.

**Continuation of Routes 1 and 2:** Follow Navajo Road 6130 for 2.1 miles and turn left on a somewhat less traveled, but still good road. This road allows you to bypass several hogans that can be seen off to the right. Remain on the main track at any branching junctions for 3.1 miles at which point you'll turn right at a corral. The road becomes somewhat rougher as it climbs up a hill to a junction at a ridge 0.5 miles later. Turn left and follow this ridge 0.3 miles to a large parking area on the right at UTM: 12S 437326 mE, 4008050 mN, WGS84 Datum.

*TRIP DESCRIPTION*

**WATERHOLE CANYON (RATING: 3B IV):** From the parking spot, hike due east into a minor tributary of Waterhole Canyon to locate an old, well constructed sheep trail, which winds along the right side (facing downcanyon) of the drainage. When you reach Waterhole, you can either continue along the sheep trail (which leads, appropriately enough, to a waterhole) or you can leave the trail to the left and hike down into the drainage. If doing the latter, the canyon forms a minor slot in the Coconino (which features some colorful striping) and you'll be faced with a 35-foot rappel from a knot-chock in a crack on the left. A short hike coupled with a few chockstone downclimbs will bring you to the waterhole and the end of the sheep trail.

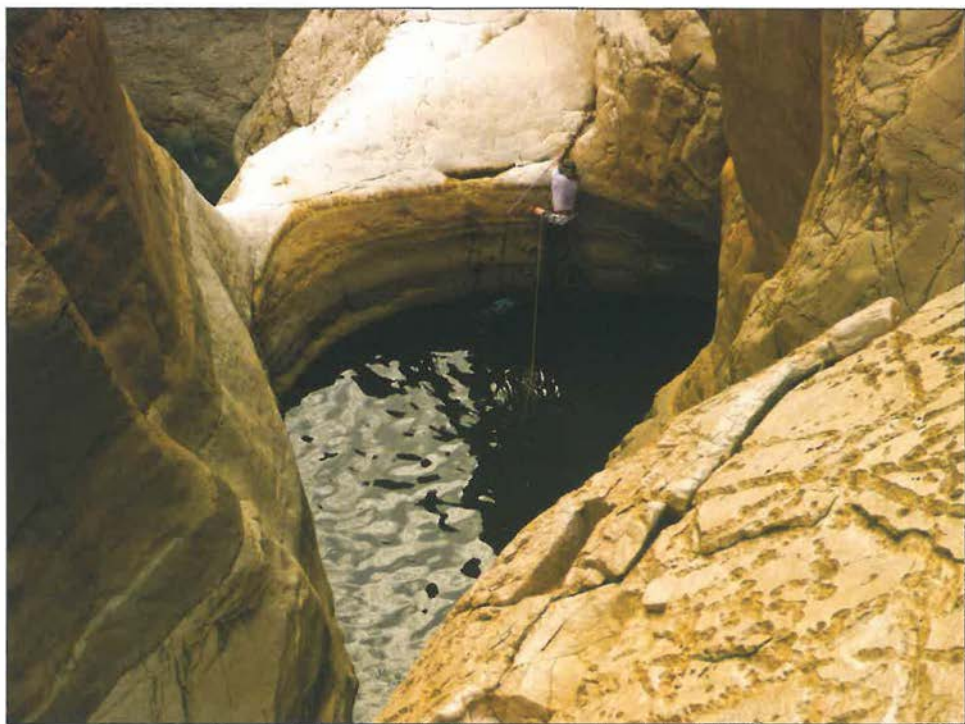
Continuing downcanyon, you'll eventually arrive at a chute and cliff. You can use a rock in a vertical crack on the left as an anchor to perform a 60-foot rappel to the bottom. Hike down around a corner to a larger drop formed by a crack along a fault line. Looking downcanyon from this point you will notice an interesting Coconino spire in the distance. There are several anchor options in the area, we used a rock wedged under a shelf on far canyon left, which also provided a clean rope pull from below. The rappel from this point was 150 feet in length into a pool, which you may be able to stem to avoid a deep wade or short swim. Not far below, you'll downclimb to a large chockstone and sling a pinch point on the left to rappel 60 feet down a vertical cliff.

Below, you'll have to do some climbing and route-finding to negotiate a path through some house-sized boulders. The drainage then enters the Supai Sandstone and you'll want to stay to the left side of the canyon to bypass a few dryfalls. Eventually, you'll reach a drop that can only be descended with rope. Again, many anchor options exist. We rigged an anchor on the left side of the dryfall by girth hitching a big rock we wedged behind a boulder. Rappel 45 feet to the canyon floor and remove your harness and complete the short hike down through the remainder of the canyon to the junction with the Little Colorado River Gorge. Turn right at the Little Colorado and hike down to the first drainage entering from the right.

From the mouth of this un-named canyon, begin climbing the steep, rocky hillside to the far left to locate a cairned path. The route climbs steeply up the hillside then bends right to travel more distinctly along a series of ledges. It then climbs to the top of the Supai to follow the drainage on one side or the other at a more moderate grade. After some hiking, the trail begins a steep ascent of a breakdown pile on the left (facing upcanyon), which it climbs to eventually gain a ledge that it then follows to the right to gain the top of a large dryfall. Continue up this now shallow wash to a point where the canyon forks and the path fades. Walk up the right fork for 10-minutes or so before climbing out on the left to the top of the hill and your car.

**BIG CANYON (RATING: 3B IV-V):** Big Canyon can be accessed from either the Big Canyon or Salt Trail parking spots. The advantage of the former is that the approach is easier and faster, the advantage of the latter is that, while longer and more rugged, it avoids the need for a car shuttle.

**Approach – Big Canyon Trailhead:** From the car park, head east to descend then climb out of an un-named ravine. Continue a short distance farther to the east to the next



*Escaping the keeper pothole in Salt Trail Canyon (Photo by Rich Rudow)*



*The spring room in Big Canyon*

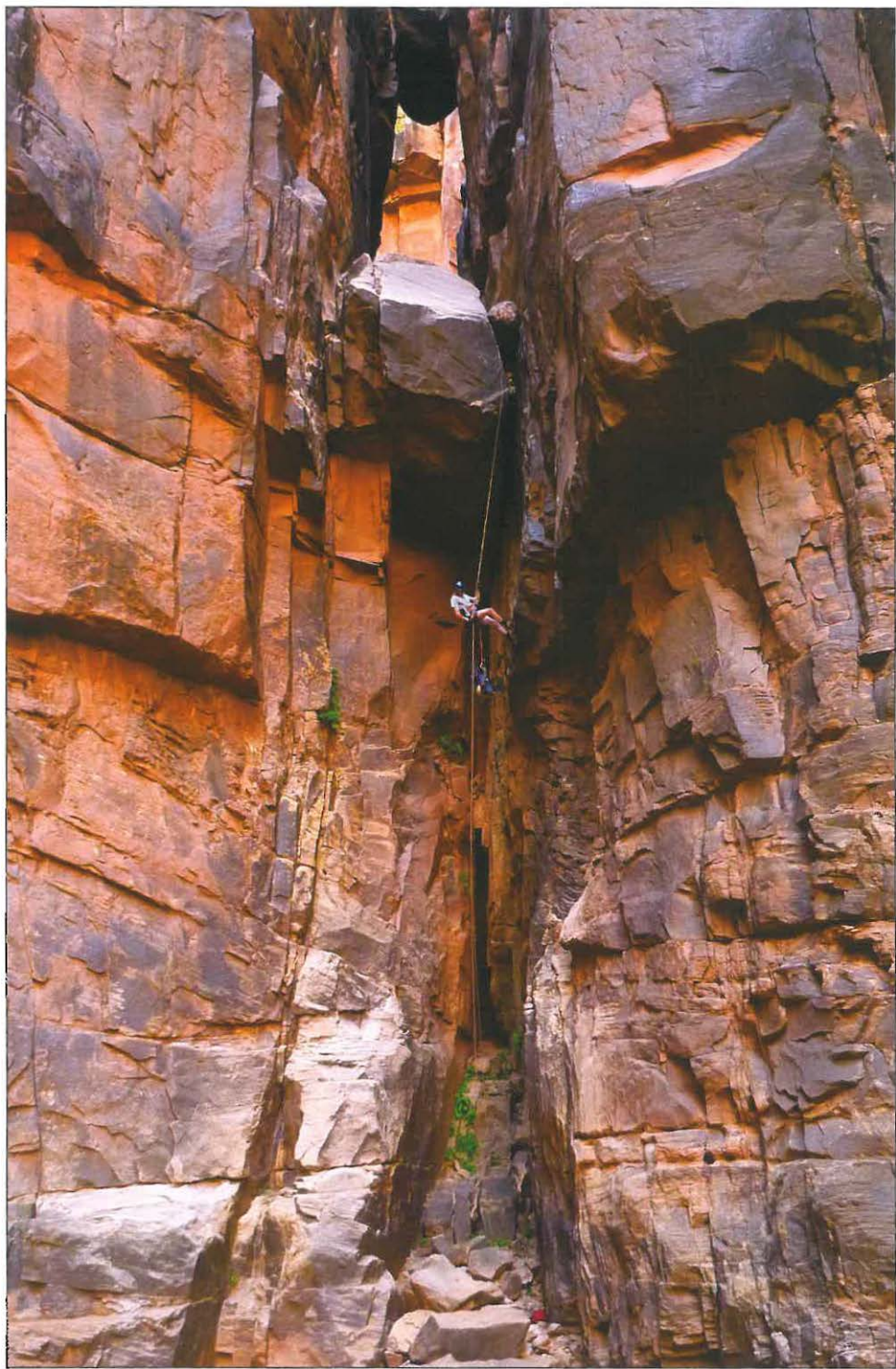


gully at UTM: 12S 441357 mE, 4004769 mN, WGS84 Datum, which allows entry into the canyon. Though steep, it's a fairly straightforward task of picking your way down this steep ravine to enter the deep drainage of Sheep Wash below. Once down, turn right and hike down the wide, flat, gravel-filled wash for 1.6 miles to arrive at the confluence with Big Canyon, which enters from the left. Continue the hike down Big Canyon for another 2.5 miles until Redwall limestone appears underfoot and eventually begins to form moderate narrows. There are a few pools in this section that may require wading or a short swim.

**Approach – Salt Trail Trailhead:** From the car park, follow the Salt Trail description below to the top of the Redwall at a point where the trail bends right and descends to cross the wash. Instead of descending, remain to the left (north) and begin contouring along the top of the Redwall. You'll soon be forced with a decision as to which of the several layers to follow. When in doubt it's best to choose a layer that's a bit higher than the middle to avoid becoming cliffed out. After contouring out to the end of Salt Trail Canyon to a point overlooking the Little Colorado River (LCR), the walking becomes easier as you follow the rim left, then left again up into Big Canyon. Continue up canyon to a point where it's possible to follow one of the minor gullies down into the bottom of the drainage. Once down, head down canyon into the Redwall, which soon begins to form moderate narrows. There are a few pools in this section that may require wading or a short swim.

**Big Canyon:** Soon, you'll arrive at the first rappel and the sound of running water below. Use a pinch point on the right at the top of the drop to perform a 60-foot rappel, with an awkward start that drops into a stunning water-filled chamber. A short swim through a pool will bring you to the source of all the water, a gushing spring, which spurts from a hole in the right canyon wall. After taking photos, walk down a short distance to sling a rock wedged in a crack on the left as an anchor for a 100-foot rappel down a shushing falls into a narrow corridor. Use care in placing your rope at this drop, there is a crack under a rock on the left that can make the pull difficult. Swim through the corridor to arrive at the top of a travertine falls that can be descended by rappelling 50 feet from a sling around a rock-chock on the left. Climb down a few ledges to the top of the next falls to sling a rock wedged under a shelf on the left to rappel 95 feet down another travertine falls to arrive at the final drop above the Emerald Pools. From this point you can either follow a treacherous and slanted ledge to the left to skirt the final falls, or better yet, sling a rock wedged under a shelf on the left to complete an 80-foot rappel into the pool below.

Once down, remove your harness and wetsuit and proceed down canyon through the boulders. As the boulders become larger, work your way to the left to gain a gravel slope that can be used to bypass several drops in the lower part of the drainage. After working your way down the slope, remain to the left and thrash your way through a thicket of cattails to pick up a path that travels beside the Little Colorado River. Turn right on this path and follow it downstream to the mouth of Salt Trail Canyon. Keep your eyes peeled for a spur trail on the right that leads into a mesquite bower to a small clearing and campsite used by the Arizona Fisheries Resource Office. Reverse the hike described



*The final rappel in Waterhole Canyon (Photo by Rich Rudow)*

below to follow the path up and out of Salt Trail Canyon to the rim and your vehicle.

**SALT TRAIL CANYON (AKA: BEKIHATSO WASH):** From the parking area, head north past the large cairn that marks the start of the trail. The route descends a minor hill to the left to enter a shallow valley. It then bends south to arrive at a cleft in the limestone at the head of Salt Trail Canyon (UTM: 12S 437143 mE, 4008147 mN, WGS84 Datum). Pick your way carefully down into the vertical ravine through the Kaibab and Toroweap formations keeping an eye out for loose gravel and rocks. The path becomes somewhat less treacherous and the footing more solid upon reaching the Coconino layer, although the grade remains steep. At the base of the Hermit Shale the route becomes less abrupt as it shifts over to the left side of the canyon to travel along Supai ledges (cairns mark the way). The trail drops off the ledges, but remains up against the left wall of the canyon for quite some time before eventually dropping down into the bottom of the canyon at the head of the Redwall narrows. Water might be available from pools a short distance down from where the trail crosses the drainage.

**Redwall Narrows (Rating: 4B R IV–V):** From the top of the Redwall, hike down the drainage a short distance to the top of the first drop and a view of the large keeper pothole at its base. Depending on water levels the pothole presents a difficult challenge to escape. Here are a few suggestions for those looking to tackle the problem. There is another drop immediately below the pothole. The same anchor used to enter the pothole will be used for this drop as well. The total length of the rappel is 130 feet and may be rigged from a pinch point between two boulders at the top of the drop. Since the pothole is so large, the use of throw bags may be ineffective for anyone lacking the passing skills of a professional quarterback. We were able to escape using an Imlay Happy Hooker to reach up and snag a small crack on the downcanyon, right side of the lip. The Happy Hooker consists of a large climbing hook connected to a long tent pole. You'll need to connect several etriers to the hook for use as a ladder once the hook is firmly seated in a natural feature. The individual in the water will have a hard time seeing the crack, so having someone give directions from above is helpful. It might also be worth bringing a packraft to use as a floating platform for the hooking process. In addition to eliminating the need to tread water, the raft will lift you out of the water providing a better angle with which to hook the crack. Finally, be sure to leave the rope fixed in place until the pothole has been exited in the event that retreat becomes necessary!

Assuming you've managed to get past the pothole, continue downcanyon a short distance to rappel #2 which is 25 feet in length from a pinch point on the left. Rappel #3 lies a short distance beyond and is 50 feet long using a knot-chock in a crack on the left (there is also a piton in a crack on the right, but the location is not conducive to a smooth pull). The next drop may be bypassed by climbing up on the right, then down a vertical crack that, while exposed, offers good hand and foot holds. The fourth rappel is 30 feet in length from a rock horn on canyon left. The next two drops may be bypassed by climbing around on the left. These are followed by a nuisance rappel of 20 feet using a pinch point on the left.

Bypass the next small drop-off on the right to arrive at rappel #6, which is about 15 feet in length using a pinch point on the right as an anchor. Soon thereafter you'll



reach a 15-foot drop that can be rigged from a rock wedged in a crack on the left. Complete a downclimb into a pool then wade through the narrow slot at the bottom to arrive at the final rappel, which is 50 feet in length using a pinch point on the right and brings you into a scenic grotto with a shallow pool, and picturesque alcove. After pulling your rope and removing your harness, head downcanyon to soon enter a wall-to-wall field of large, jumbled boulders. Some route-finding and climbing is required to negotiate a route through the boulders making for rather slow progress. As you proceed, look for the trail to appear a short distance above the canyon on the slope on the right at a point near some mesquite trees. You can either continue down through the tedious boulder field (where additional rappels possibly await) or take the easy route up to the trail which can be followed to the left to the Little Colorado River, or to the right back up and out of the canyon.

**Continuation of Salt Trail (Rating: 1A III):** From the top of the Redwall, the route climbs up a short distance on the right then forks at a small bay. Left is the more direct route, but requires some steep downclimbing and the use of hands. Right takes you up and around the bay but requires a short traverse along crumbly slope. Those with heavy packs will either want to take the right branch or lower packs if downclimbing the left. The paths converge again below the drainage at which point you will have views into Redwall narrows below and the big keeper pothole.

The route travels along the top of the Redwall for some distance and a fairly level grade then, when a view of the LCR presents itself, the trail begins descending steeply through the Redwall along a rocky track and series of switchbacks to eventually arrive at the bottom of Salt Trail Canyon several hundred yards above the Little Colorado. Look for cairns marking the route across the wash then through the mesquite trees to arrive at a small clearing and campsite used by the Arizona Fisheries Resource Office (AZFRO) as part of their efforts to monitor endangered humpback chub, *Gila cypha*, which is found in the lower 9 miles of the Little Colorado River. The decline in the humpback chub population is believed to have been caused by construction of the Glen Canyon Dam, which altered water flow and temperature and allowed introduced fish species that eat small humpback chub to proliferate.

Those looking for an interesting side trip may want to visit the lower end of Big Canyon and a scenic spot called Emerald Pool, which features two travertine waterfalls and a large green swimming hole. It also has the dubious distinction of being the site of a flash flood that swept down Big Canyon on August 7, 2001 killing photographer George Lamont Mancuso and his hiking companion Linda Brehmer. Big Canyon may be found ½ mile upriver from Salt Trail Canyon entering the LCR from the left (east). To get there, hike upstream a short distance along a use trail next to the river, which flows a brilliant blue when conditions are dry due to high levels of dissolved lime (and a muddy brown if rains have stirred up the sediment). You'll know you're getting close when the path becomes wet and muddy and enters a thicket of reeds fed by a perennial stream, which exits the mouth of Big Canyon. Emerald Pool lies a short distance up this drainage hidden behind piles of house-sized boulders. The easiest approach (though still not easy) is from the upriver (south) side of the mouth of Big Canyon. The hike requires a thrash through some cattails and mesquite, at which point you'll want to climb up the hillside on the right (facing upcanyon) and

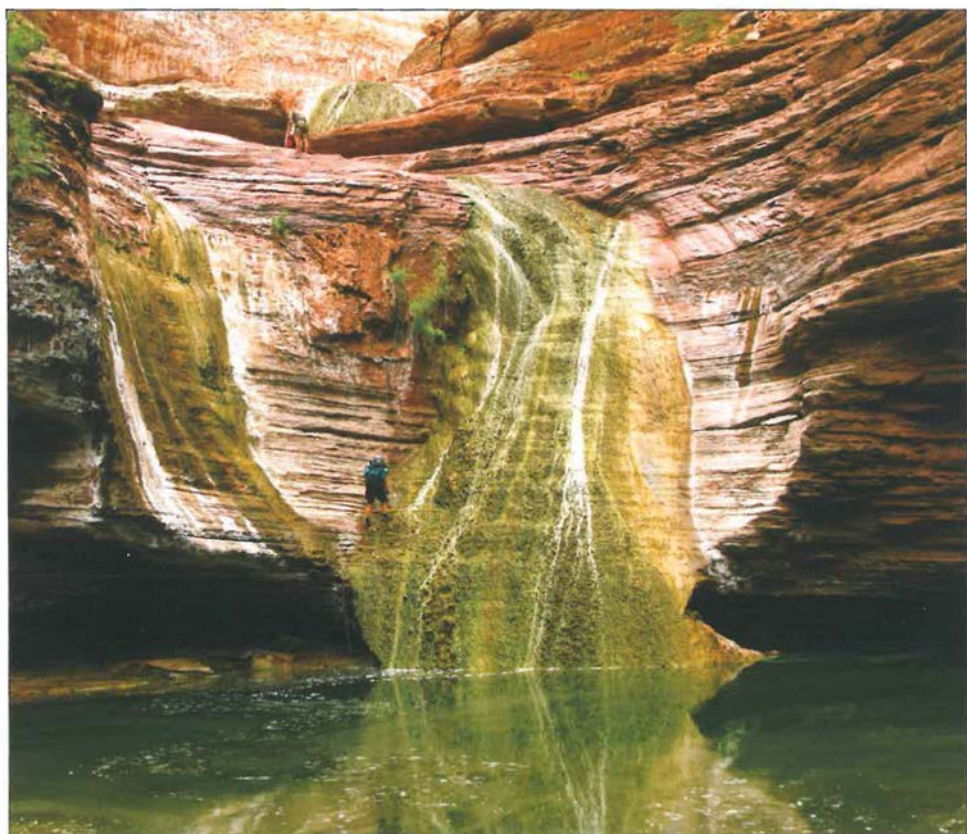
contour along the rocky hillside to get past the large boulders and pools in the streambed. Once around the boulders, you can work your way back down into the canyon and scramble the remainder of the way to the lower Emerald Pool. It's also possible to visit the upper pool by backtracking a short distance then climbing up and around on the right (facing upcanyon); however, the route is rather perilous due to steep slopes and loose rock.

When ready, return the way you came or use this as a jumping off point for further exploration.

## **AUTHOR'S RATING**

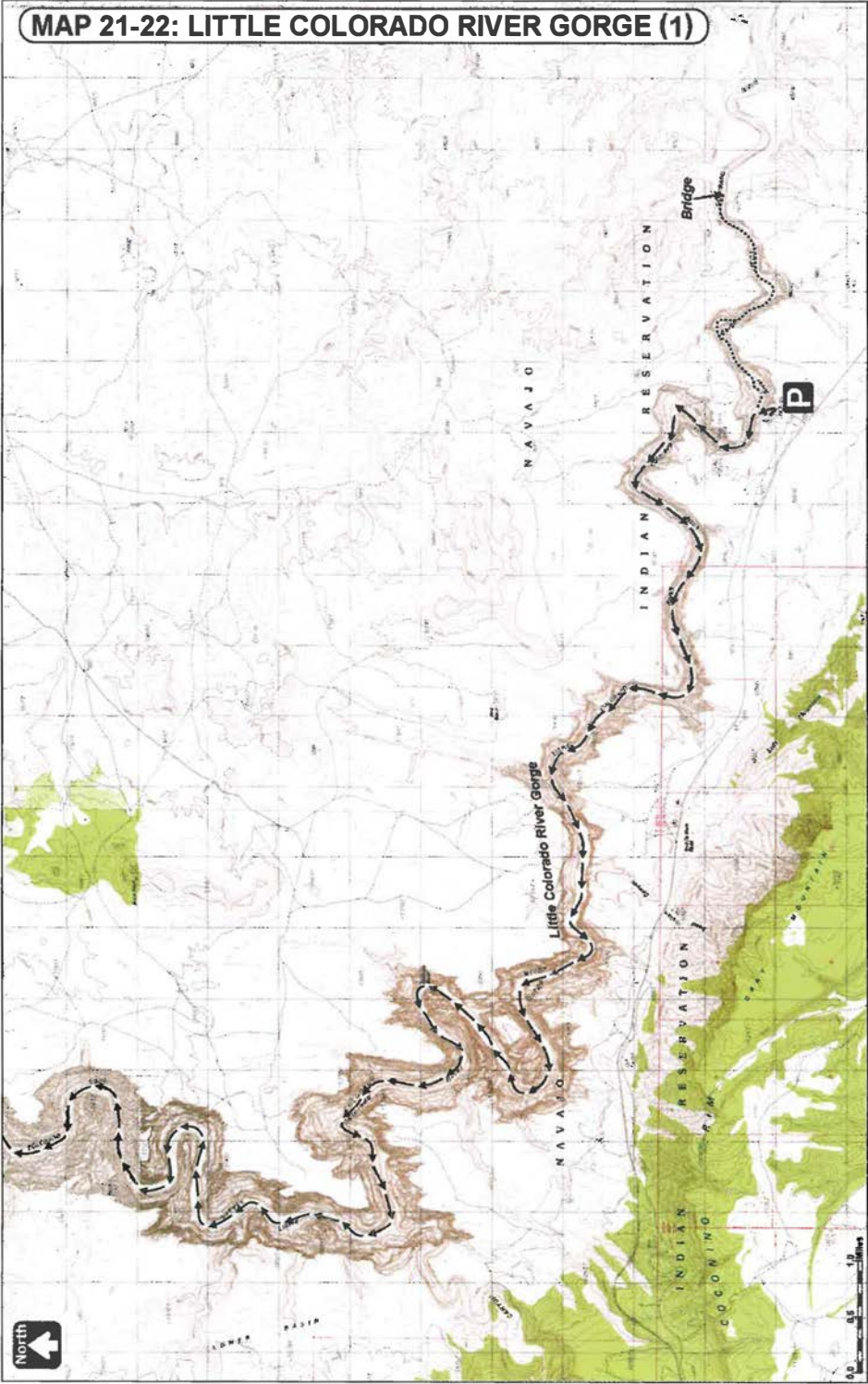
**Waterhole Canyon: ★★     Salt Trail Canyon: ★★★     Big Canyon: ★★★★★**

Spotting a car at the exit drainage, Rich Rudow, Aaron Tomasi and I completed Waterhole Canyon in 6 hours. At a later date, Rich and I hiked Salt Trail Canyon to the Little Colorado, then upcanyon to Big Canyon to poke around and photograph the Emerald Pool. We then returned to the rim, hiking a total of 7 hours. Still later, Rich, Aaron Locander and I completed a loop descending Big Canyon and returning via Salt Trail in 10 hours. Most people would probably prefer to take 2 days to complete this trip, spending a night at the small clearing and campsite at the base of Salt Trail. Finally, Rich Rudow, Albert Putzig and I descended Big Canyon using the alternate entrance and the technical narrows of Salt Trail Canyon in 2 days.



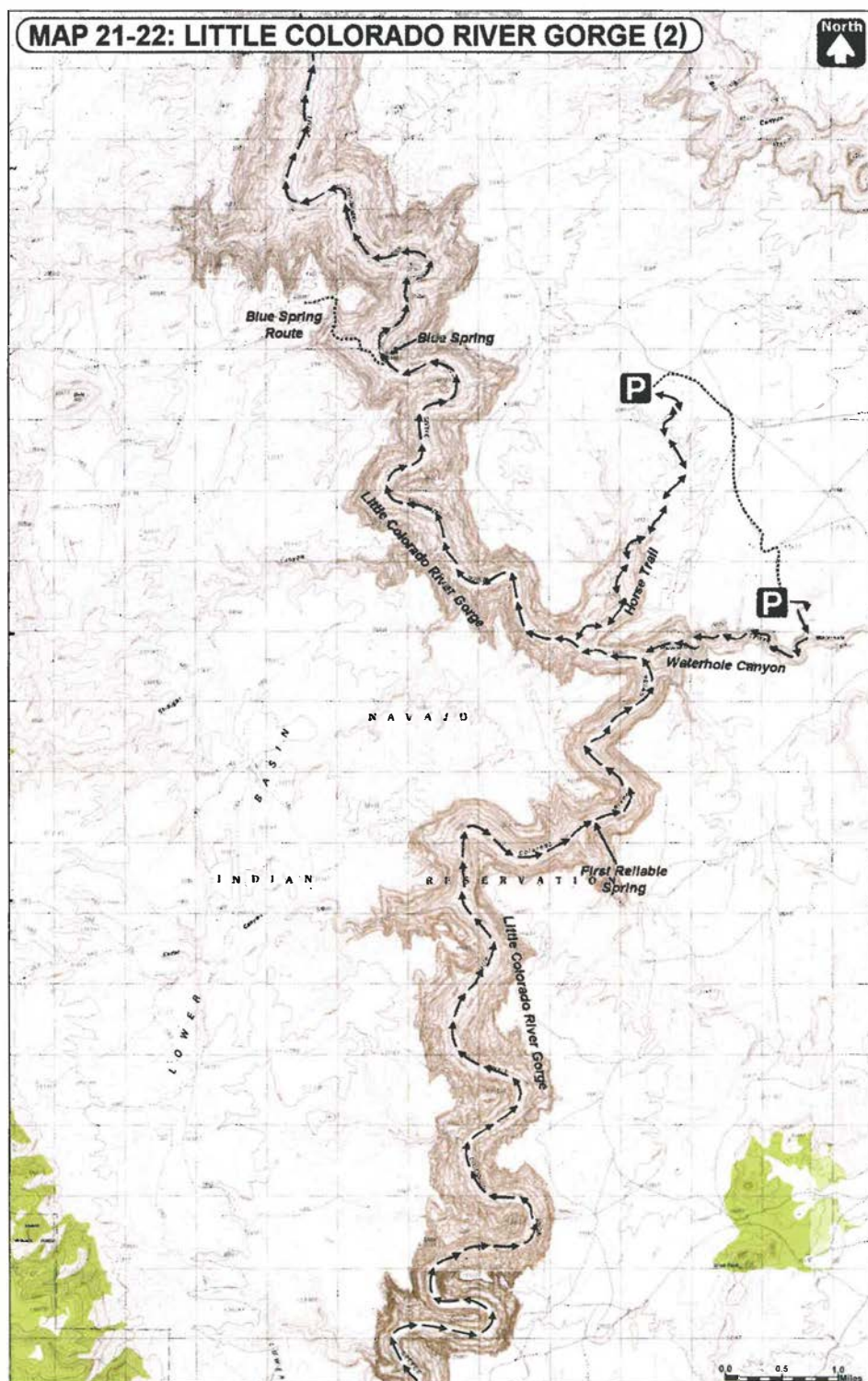
*The final drop in Big Canyon into the Emerald Pool*

MAP 21-22: LITTLE COLORADO RIVER GORGE (1)

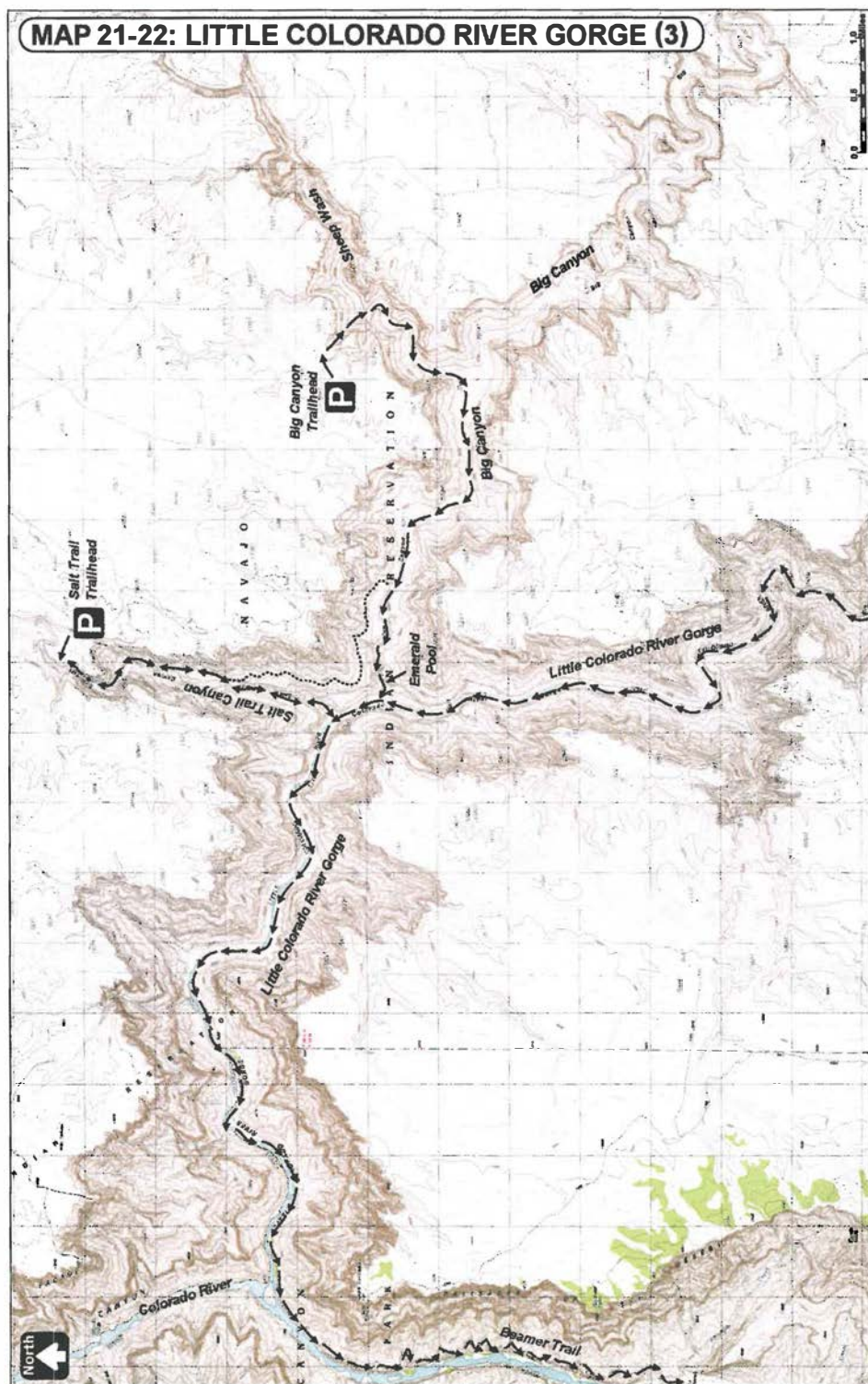




MAP 21-22: LITTLE COLORADO RIVER GORGE (2)



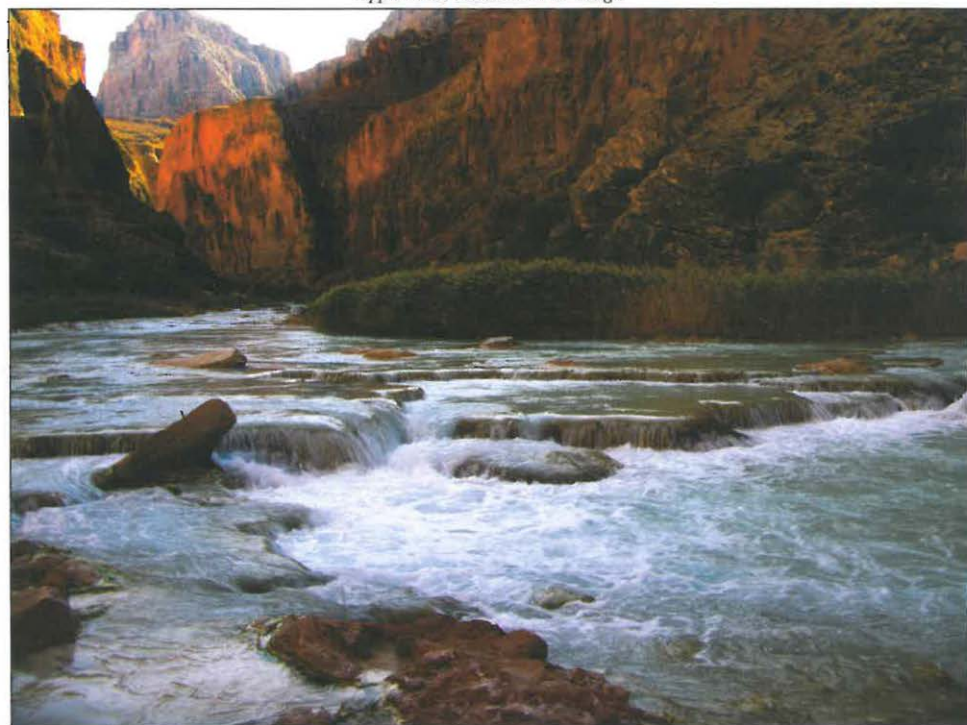
MAP 21-22: LITTLE COLORADO RIVER GORGE (3)







*Upper Little Colorado River Gorge*



*The LCR below Blue Spring*



22: Little Colorado River Gorge

**OVERVIEW:** A remote backpacking/wilderness trip through the Little Colorado River (LCR) Gorge starting at the Canyon Viewpoint and exiting via the Beamer and Tanner Trails.

**LOCATION:** Navajo Nation/Grand Canyon National Park. South Rim. Use areas: BB9, BA9, AF9

**REQUIRED GEAR:** Backpacking equipment, drybag, hiking stick(s), containers to carry 1–3 gallons of water, and shoes with good traction. You’ll need to start the hike with enough water to cover the first 25 miles, which are dry.

**SPECIAL CONSIDERATIONS:** Water of varying quality (bad and worse) is available along the Little Colorado River; however, it is highly mineralized below Blue Spring. Otherwise, water is available at the Colorado River. Because reliable potable water is scarce, I highly recommend caching water prior to your hike (Horse Trail and Salt Trail Canyon make for easy cache locations – see previous trip description). Camping gear must be kept dry during the many river crossings. After rains and during wet times of the year, the canyon will be filled with thick mud and quicksand that will make hiking extremely tedious. For this reason the hike should be done during the driest times of the year and only after several weeks without rain. This hike requires a permit from the Navajo Parks and Recreation Department and the National Park Service.



<b>ACA Rating:</b> 1 C VI	<b>Distance:</b> 63.5 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 7,400 – 2,750 ft.
<b>Time Needed:</b> 4 – 6 days (or more)	<b>Best Time of Year:</b> late Spring, early Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> Yes
<b>Maps:</b> USGS Coconino Point, Hellhole Bend, Blue Spring, Salt Trail Canyon, Cape Solitude, Desert View 7.5	<b>Navigation:</b> Easy

DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89 to Cameron. Stop in at the Navajo Parks and Recreation Office located on the left just before the junction with State Route 64 and pick up a Navajo hiking permit (\$5 per person per day, plus \$5 per person to camp). Before proceeding to the trailhead, take a quick detour 2 miles north on Highway 89 to the bridge across the Little Colorado. If water is flowing beneath the bridge, then it’s safe to conclude that the canyon will be a muddy mess and best left for another day. If the riverbed is dry, then proceed.

**CAR SPOT:** Turn left (west) onto Highway 64 and follow it approximately 30 miles to the East Entrance on the South Rim. Continue west another 2.5 miles and turn right (north) at the sign for Lipan Point.

**TRAILHEAD:** Turn left (west) on State Route 64 and drive 9.4 miles to between mileposts 285 and 286 to the Canyon Overlook on the right (north) side of the road.

*TRIP DESCRIPTION*

From the car park, walk east around the fence a few hundred feet to the first drainage you encounter. This is the entry route, but you can't go straight down the ravine; instead walk around the head to a steep rift on the east side of this drainage. Some climbing is required to get down, but nothing terribly difficult. At the bottom of the crack, contour around into the main drainage on a narrow path. From here it's a simple matter of picking your way down the boulder and trash filled ravine the remainder of the way into the Little Colorado River Gorge.

Those with the time and inclination may want to perform a short detour by dropping packs and hiking upcanyon for about an hour to a scenic spot where the canyon narrows and an old bridge, now in disrepair, spans the canyon. The bridge is located about 2.5 miles upcanyon at GPS Point - UTM: 12S 452306 mE, 3975951 mN, WGS84 Datum.

When ready, proceed downcanyon; if conditions are favorable, then the riverbed should consist largely of dry, hard-packed dirt, interspersed with a few muddy puddles. Hiking will be easy and fast in the dry riverbed with progress occasionally slowed as you encounter short sections congested with boulders. Not far below the entry, you'll pass a gauge station on the left, after which you'll find pleasant hiking through a deep gorge bordered by sheer Coconino cliffs. Other than a slow deepening of the canyon, conditions remain largely unchanging for the next 25 miles. With the exception of a few muddy potholes, this section is also entirely without water, so you'll need to carry enough for at least one dry camp.

Eventually, you'll reach the first spring at about mile 25 at GPS Point - UTM: 12S 440519 mE, 3990524 mN, WGS84 Datum. The spring forms a small stream in the middle of the canyon and brings with it sections of mud and quicksand. These are best avoided by taking advantage of benches, where they exist, and using rocks to aid in stream crossing where possible. Those hiking during cooler autumn weather will be pleased to learn that the water from the spring (and all subsequent springs) is fairly warm, which helps prevent one from becoming chilled during the many river crossings. Two miles below the spring, Waterhole Canyon enters from the right and a short distance later you'll pass an un-named canyon on the right, which has a fairly well defined horse trail that allows access to the rim (described in the previous hike description). The stream flow gradually increases as you travel downriver due to small springs, which enter from the canyon walls. Five miles below the canyon with the horse trail you'll reach Blue Spring, which adds a significant amount of flow to the river as it boils up from a hole in the Redwall limestone below the waterline at GPS Point - UTM: 12S 437577 mE, 3997095 mN, WGS84 Datum.

**BLUE SPRING ROUTE:** The Blue Spring route to the rim begins just upriver from Blue Spring. The route provides quick access to the rim via a rather complicated and exposed course through the Coconino Sandstone. Those interested in completing the route can pick up the beginning of the trail at GPS Point - UTM: 12S 437667 mE, 3996961 mN, WGS84 Datum. The path climbs a series of Redwall ledges then contours into a minor drainage of the LCR and begins climbing steeply along a well marked trail. At the base of the Supai, the route splits with cairns marking routes up to the right and left. The route to the right travels directly up the left side of a north/south oriented ravine. The way is rather steep, requires a few short, vertical climbs and is a little tricky to follow. The route to the

left is marked with cairns at frequent intervals and is, on the whole, less exposed. Taking the latter, the path contours left around the base of the Supai before bending right (north) to climb a series of Coconino slabs and ledges (some exposure exists) into the north-south facing ravine where it joins the other route. The combined paths then climb directly up the rocky ravine to a final section of cliffs. Keep your eye out for cairns marking the route as it climbs vertically up the cliffs, occasionally traversing narrow and exposed ledges to reach the next pitch. The climbs are not difficult, but due to the exposure, the route is best left for those without a strong fear of heights. The path tops out on a narrow ridge at GPS Point - UTM: 12S 436932 mE, 3997933 mN, WGS84 Datum. A short walk to the west will bring you to the end of a dirt road. When ready, return the way you came.

**CONTINUATION OF THE LCR:** Below Blue Spring, the hiking becomes considerably slower and more difficult as you are forced to perform multiple river crossings against a now forceful current. There are also increased incidences of mud and quicksand to contend with. Be sure all your critical gear is stored in drybags before tackling this segment. The routine is to hike a bench on one side of the river or the other until it disappears, cross the river, and repeat. Look for shallow and calm areas of the river to make the crossings. Those carrying a walking stick (or two) will find them to be quite an asset in this section. Fortunately, the difficulty of the hiking is matched by the canyon's beauty, particularly if the river is running a brilliant blue from dissolved lime in the water.

After approximately 3 miles of difficult hiking, you'll pass through a short section of Redwall narrows to arrive at a helicopter landing pad that has been constructed on a small, cleared patch of ground on a low hill on canyon left at GPS Point - UTM: 12S 436403 mE, 3999230 mN, WGS84 Datum. Though not interesting in and of itself, the helipad marks the beginning of a trail that exists on one side of the river or the other for the remainder of the canyon. The trail allows for much faster progress (particularly in those sections where it allows passage through tall, jungle-like thickets of reeds, cattails and willows) and reduces the amount of time spent in the river.

Approximately 3.3 miles below the helipad, Big Canyon (which has a perennial stream) enters from the right. Emerald Pool lies a short distance up this canyon and makes for a worthwhile destination (see previous trip description). Salt Trail Canyon lies ½ mile below Big Canyon and features a small clearing and campsite used by the Arizona Fisheries Resource Office (AZFRO) as part of their efforts to monitor endangered humpback chub, *Gila cypha*, which is found in the lower 9 miles of the Little Colorado River.

Remain on trails on the right side of the LCR below Salt Trail Canyon for ¾ miles to GPS Point - UTM: 12S 435125 mE, 4005229 mN, WGS84 Datum, and the final river crossing, which can be done with some difficulty by walking across a rim-stone dam. About 2 miles below Salt Trail Canyon a site known to the Hopi Indians as the Sipapu may be found on the north side of the river. The Sipapu is an interesting geological feature formed by a spring. It is also considered sacred by the Hopi whose mythology marks it as the spot where man emerged from the earth after passing through a succession of worlds (so please don't walk on it).

Below, a good trail may be found on the left side of the LCR all the way to its junction with the Colorado River (*Note: the Park Service does not allow camping within 0.5 miles of the confluence of the Colorado and the Little Colorado Rivers*). The walking is flat and



easy as the path winds along the bank occasionally plowing through thickets of cattails. Just before reaching the confluence with the Colorado River, you'll pass the Beamer Cabin, which is located under a Tapeats ledge on the left. The cabin is over 100 years old and is marked by signs that urge hikers not to touch or enter the cabin due to its fragility. The cabin was the home of Ben Beamer, a pioneer, farmer, and miner who constructed the stone building from the remains of a Puebloan ruin in 1890.

A short distance below the Beamer Cabin, the trail climbs up onto the Tapeats ledges on the left with good views overlooking the confluence of the Colorado and Little Colorado Rivers. The path soon bends left (south) to wind along ledges above the Colorado. The trail is relatively level all the way to Palisades Creek. Along the way, the trail winds in and out of a number of small drainages. Typically, the trail drops down as it enters a drainage then climbs back out the other side. Occasionally, there is a big debris pile in the drainage that you will have to climb on the way in or out. Be aware that the bottoms of the drainages are quite rocky, making the path somewhat indistinct in places, though there are many cairns marking the way. It's probably a good idea to identify and make a mental note of the trail out the other side as you enter each drainage to minimize the time spent hunting for the route. The path eventually performs a short, but steep descent through the Tapeats Sandstone to arrive at the dry, rocky wash of Palisades Creek. There is a campsite on the sand with a big fairly flat rock for spreading out your stuff on the beach next to the rapids.

The hike becomes a sandy slog as you continue south of Palisades. Along the way you may see the paltry remains of Seth Tanner's old cabin off to the left (unless a few scattered logs are your thing, it really isn't very interesting should you decide to hike over to it). The path soon arrives at a section of dark brown Dox Sandstone and forks. The split marks high and low water routes across the next section. The low water route to the right involves a little scrambling and bushwhacking and may not be possible to follow if the water level is high, the high water route to the left is more defined and climbs on top of the Dox Sandstone to follow the cliff edge along a somewhat exposed path. Whichever way you choose the trails will bring you to the beach again at the dry wash of Espejo Creek. The route continues south, passing through a few areas of deep sand and across the large drainage of Comanche Creek then across a few other minor drainages to once again climb up to the top of the Dox sandstone, which it follows to the drainage of Tanner Canyon and right and left branching trails. Right will bring you to the Tanner Delta, which has some nice camping spots and a composting toilet. *Note: The large sand dune at the mouth of Tanner Canyon is closed to visitation in an effort to protect plant and animal habitats that revolve around what remains of the old pre-dam sediments near the river.*

Turn left onto the Tanner Trail as it begins its 9-mile ascent to the canyon rim starting with a moderate climb up a crumbly hill composed of Dox Sandstone. The route becomes steeper the higher you ascend until you eventually reach the Bright Angel Shale. The path bends right and levels out for a short distance as it winds its way along a ledge then begins climbing once again through the remainder of the Bright Angel Shale. The trail soon starts climbing very steeply through the Redwall along a series of switchbacks to eventually gain the plateau at the top of this layer (a nice, but dry campsite may be found on the left a short distance after topping out). The path then becomes considerably more level as it winds its way to the southwest first circumnavigating Cardenas Butte, then Escalante Butte. Looking up to the left as you hike, you'll be able to see the Watchtower (a Mary Colter design, built in 1932 as a view point and gift shop).

After rounding Escalante Butte, you'll arrive at a ridge with views to the right into Seventyfive Mile Creek. The path then begins ascending at a moderate grade past the Stegosaurus Rocks to eventually enter a rocky ravine where it begins climbing in earnest once again. Look for cairns where the trail enters the bottom of the ravine (hint – it climbs out each time on the right). The trail ascends the ravine through the Coconino Sandstone and then begins a series of steep switchbacks to ascend through the Toroweap and Kaibab Limestone. The path levels off just before arriving at a large sign marking the start (or end in this case) of the Tanner Trail. Follow the paved road to the right a short distance to the Lipan Point parking lot and your vehicle.

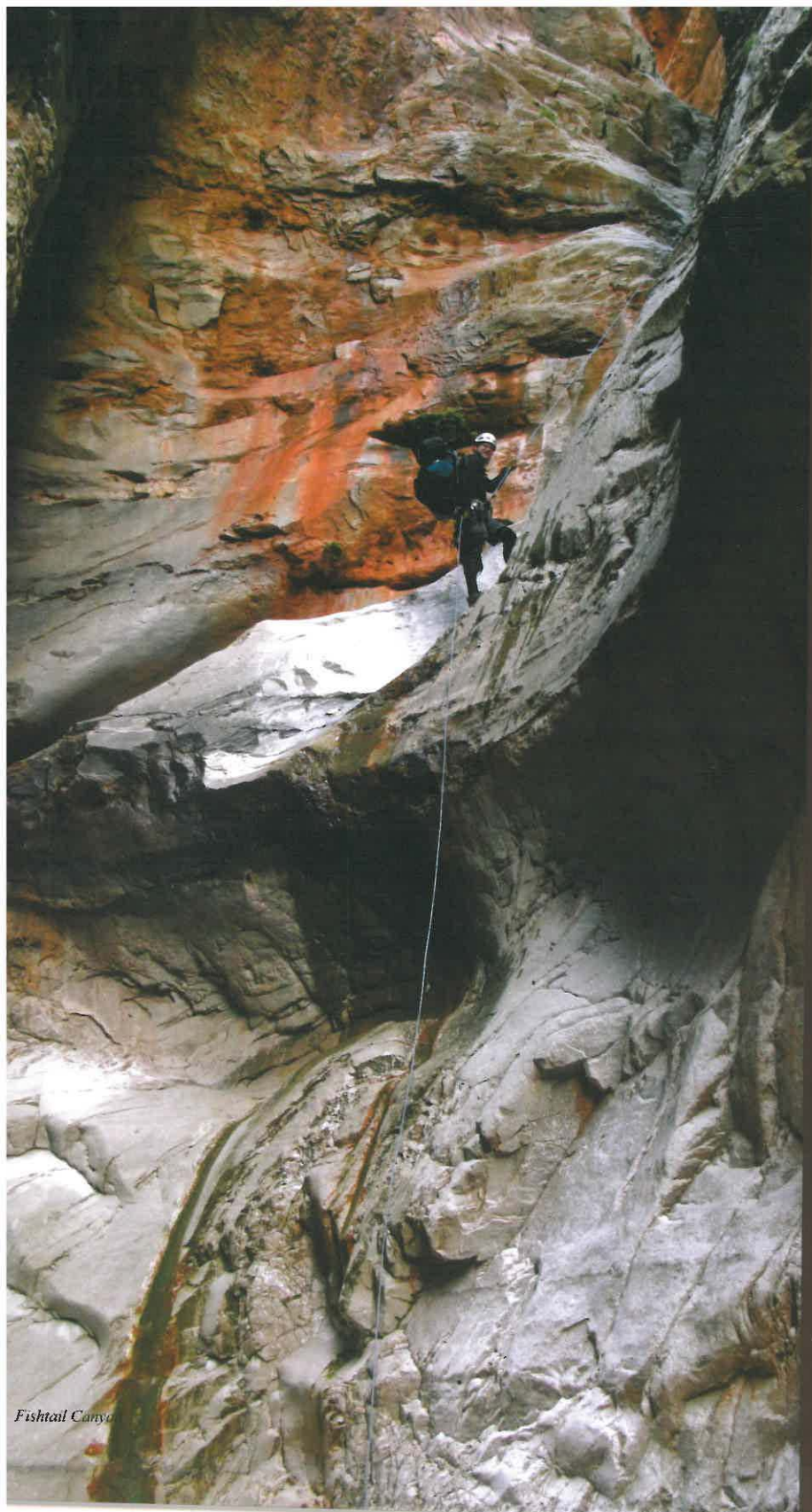
## *AUTHOR'S RATING ★★★★★*

The two main logistical problems associated with this hike are water related. The first is that there is an absence of good drinking water and the second is that the hike is best done during very dry conditions when mud and quicksand are negligible. These difficulties were solved by caching a gallon of water ahead of time at the mouths of Waterhole and Salt Trail Canyons and by completing the hike during cool fall weather, which greatly reduced the amount of water needed. Every hike description I've read has urged hikers to do the hike in late spring (late May – June timeframe) after winter flows have stopped and the riverbed has been given a chance to dry. The only problem I can see with this suggestion is that it is usually quite hot by this time, increasing water needs. We figured the same dry conditions would exist in the fall and attempted the hike the week of Thanksgiving after an extended period of dry weather. Though a bit on the chilly side, conditions for hiking were otherwise ideal. Since water from the springs is fairly warm, no wetsuit or neoprene socks were needed.



*Contemplating another crossing of the LCR*





# CENTRAL GRAND CANYON

7



## CHAPTER 7: CENTRAL GRAND CANYON

Central Grand Canyon includes the region between the Little Colorado River and Kanab Creek. These drainages represent two of the three largest drainages to enter the Canyon; Havasu Creek, which drains into western Grand Canyon is the third. A defining feature of the Central Grand Canyon is the asymmetry of the river tributaries. On the south side of the canyon, the drainages are relatively short. This is due to the fact that the surface slopes southward, causing less water to flow northwards into the river. Less water means less erosion and, as a result, the drainages on the South Rim have been scalloped into a series of semicircular alcoves. Since the North Rim is also tilted towards the south, it channels considerably more water towards the river creating more erosion. This has caused the North Rim to erode back as much as 7 to 10 miles from the river, creating much longer river tributaries.

The Vishnu Schist and Zoroaster Granite appear in the central Canyon beginning at river-mile 77.4, forming the Granite Gorge, a dark V-shaped chasm consisting of some of the oldest and hardest exposed rocks on the planet. The granite is more than 1,000 feet thick in sections.

The central portion of Grand Canyon National Park is the most commonly visited part of the canyon and as a result has been the focus of development and visitor amenities. Grand Canyon Village on the South Rim has all the accouterments of a small town, while the North Rim, though less developed, offers many basic services.

Much of this infrastructure had its origins in the 1920s as park managers in collaboration with the Fred Harvey Company, and railroads sought to address housing, utilities, and other services demanded by early park residents and an ever growing number of visitors. Development continued through the 1930s and the Great Depression as employees of the Civilian Conservation Corps (CCC) and Public Works Administration (PWA) were put to work in the canyon by the hundreds on construction and maintenance projects of every conceivable sort. Many of the buildings still in use today date from this intensive period of development.

### **ROAD ACCESS**

The National Park Service maintains up-to-date road conditions and closure information on their website at:

<http://www.nps.gov/grca/planyourvisit/trail-closures.htm>

<http://www.nps.gov/grca/planyourvisit/roadclosures.htm>

**SOUTH RIM:** The South Rim of the Grand Canyon is accessed by way of Highway 64, which runs north/south from Williams and I-40 to Grand Canyon Village and east/west from Grand Canyon Village to Cameron and Highway 89. This road may be used to access the major trailheads for the Little Colorado as well as the Tanner, New Hance, Grandview, South Kaibab, Bright Angel and Hermit Trails. During the months of peak visitation, access to Hermits Rest and Yaki Point are only available via the park shuttle bus. Shuttle information and routes may be found on the National Park Service website at: <http://www.nps.gov/grca>

Points to the west may be accessed by way of Rowe Well Road and Forest Road #328,

which runs from Grand Canyon Village to the Pasture Wash Ranger Station and South Bass Trailhead. During dry weather, a high clearance vehicle is needed to negotiate the rough sections on FR #328. During wet weather, FR #328 is impassible due to thick mud that will quickly sink a vehicle to the axle. Be aware that FR #328 crosses a corner of the Havasupai Indian Reservation and the border is sometimes staffed by Havasupai rangers who will charge you \$25 to drive through their land.

**NORTH RIM:** The North Rim can be reached through the use of a number of unpaved forest service roads that crisscross the Kaibab Plateau. These roads may be accessed from Highway 67, which runs north/south from Jacob Lake to the North Rim, or from Forest Road #22, which cuts diagonally through the Kaibab National Forest from Highway 89A near Fredonia to the Kaibab Lodge and Highway 67.

The forest roads in the area are, for the most part, well signed and maintained; however, due to the remoteness of the region, drivers should take basic precautions if venturing far from highways and civilization. All roads, including Highway 67, are closed during the winter months and impassible due to heavy snows that blanket the region. Be sure to have a good forecast if venturing into the area in late autumn. Early snowstorms have been known to trap people in the backcountry and some have had to abandon their vehicles until the spring thaw.



*Indian Garden as seen from the Bright Angel Trail*

**SUPPLIES AND SERVICES**

**SOUTH RIM:** There is a direct relationship between the cost of goods and services and the distance to the park boundary. Unsurprisingly, the closer you get to the park the more expensive everything will be; therefore it's best to pick up supplies ahead of time. Those coming from the south will find that the cities of Flagstaff and Williams offer all of the amenities you would expect from a medium-sized town including gas, groceries, restaurants, and hotels. The gateway town of Tusayan, on Highway 64 just south of the park, offers many of these same services, but, as it caters mainly to park visitors, prices are set accordingly.

Cameron, to the west at the junction of Highways 89 and 64 has a trading post with restaurant, gas station and motel as well as a small grocery store and a few small combination convenience store/gas stations where basic necessities may be purchased.

Within the park itself, many services can be found within Grand Canyon Village including lodging, a medical clinic and kennels. Market Plaza offers a general store, deli, bank, post office, and a cafeteria at Yavapai Lodge. A coin operated laundry and showers are found at Mather Campground (showers are \$2 for 8 minutes). The only gas station within the park on the South Rim is located at Desert View, 26 miles east of Grand Canyon Village. Desert View also has a restaurant and bookstore.

Service	Location	Hours	Phone
Laundry and Showers (Coin Operated)	Camper Services Building at the entrance to Mather Campground	8 a.m. to 6 p.m. Last laundry load 4.45 p.m.	
Bank	Market Plaza	Monday – Thursday 9 a.m. to 5 p.m. Friday 9 a.m. to 6 p.m.; 24-hour ATM	928-638-2437
Post Office	Market Plaza	Monday – Friday 9 a.m. to 4:30 p.m. Saturday 11 a.m. to 1 p.m. Lobby open daily 5 a.m. to 10 p.m.	928-638-2512
Medical Services	N/A	24-Hour Emergency Care	Dial 911 (From hotel rooms dial 9-911)
Clinic	Grand Canyon Village	Daily 8 a.m. to 6 p.m.	928-638-2551
Kennels	Grand Canyon Village	Daily 7:30 a.m. to 5 p.m.	928-638-0534
Garage Services	Grand Canyon Village	Daily 8 a.m. to noon and 1 p.m. to 5 p.m.	928-638-2631
Fuel	Desert View	24 hours with a credit card	

**NORTH RIM:** The North Rim is more remote than the South, and as a result has fewer services. Basic services may be obtained at the small unincorporated town of Jacob Lake located at the junction of U.S. Route 89A and State Route 67. The town itself consists of the Jacob Lake Inn, which maintains motel rooms and cabins, a restaurant, lunch counter, gift shop, bakery, and general store. There is also a gas station/garage, campground, and a U.S. Forest Service visitor center.

Within the park itself, a few services can be found along Highway 67. The North Rim Campground contains a gas station, camper store, coin operated laundry and showers. The North Rim Lodge offers lodging, and has a post office, bookstore, restaurant and gift shop.



Service	Location	Hours <sup>1</sup>	Phone
Laundry and Showers (Coin Operated)	Access road leading to the North Rim Campground	Daily 7 a.m. to 10 p.m.	Dial 911 (From hotel rooms dial 9-911)
Post Office	Grand Canyon Lodge complex	Monday through Friday 8 a.m. to noon and 1 p.m. to 5 p.m.	
Medical Services	N/A	24-Hour Emergency Care	
Camping Equipment	Camper Store in the North Rim Campground	Daily 7 a.m. to 8 p.m.	
Fuel and Garage Services	Jacob Lake	24 hours with a credit card	
Fuel	Access road leading to the North Rim Campground	Daily 7 a.m. to 7 p.m.	

<sup>1</sup>Open mid-May to mid-October only.

## CAMPING

**SOUTHRIM:** Those who dislike staying in, and paying for, commercial campgrounds can find free at-large camping within the Kaibab National Forest just outside of the park boundaries. Those entering the park from Highway 64 will find numerous campsites off of Forest Road #302, which is located on the east side of Highway 64 on the south side of Tusayan. Camping may also be found off the unpaved forest service roads on the south side of Highway 64 between Cameron and the Desert View Entrance Station. Forest Service rules require that campsites be located at least ¼ mile away from the highway.

Commercial camping may be found outside of the park in Bedrock City located at the junctions of Highways 64 and 180 and in Tusayan. Within the park, camping is available at Grand Canyon Village at Mather Campground for \$18 per night and at Desert View for \$12 per night. Camping at Desert View is on a first-come, first-served, self-registration basis. Reservations for the Mather Campground can be made up to 6 months in advance through the National Recreation Reservation Service by calling 1-877-444-6777 or online at: <http://www.recreation.gov>

**NORTH RIM:** Much of the North Rim is bordered by the Kaibab National Forest, making location of a campsite trivial. Simply drive down any one of the many unpaved forest roads and pull over at any flat spot that suits your fancy.

Commercial camping may be found outside of the park at sites operated by the Forest Service. The Jacob Lake Campground is located 45 miles north of the rim and is \$14.00 per vehicle per night. The DeMotte Campground is located 25 miles south of Jacob Lake on Arizona State Highway 67 and is \$17.00 for the first vehicle, \$8.50 for the second per site up to 6 people per site. Within the park, camping is available at the North Rim Campground. Campsites are \$18–\$25 and reservations may be made through the National Recreation Reservation Service by calling 1-877-444-6777 or online at: <http://www.recreation.gov>.

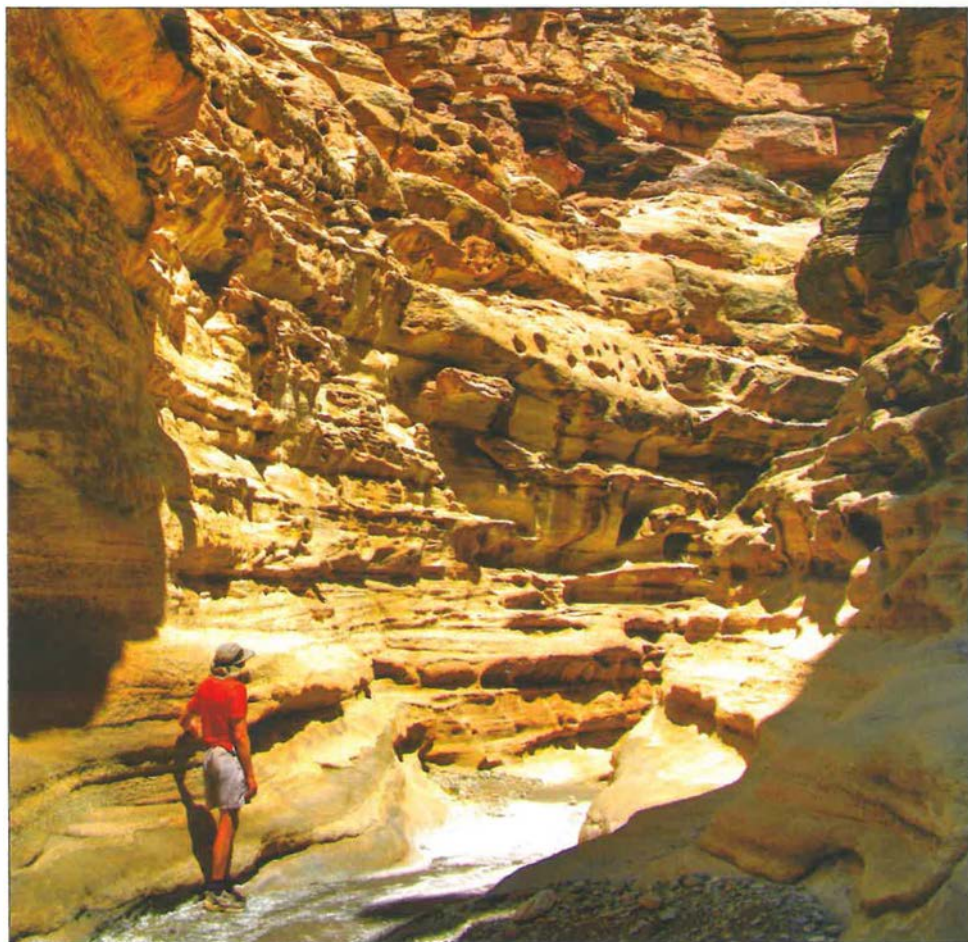
## PERMITS

A permit is required for camping within the boundaries of Grand Canyon National Park. Permits are available on a walk-in basis from the Backcountry Information Center which is located in western Grand Canyon Village near Maswik Lodge. See the chapter on Backcountry Permits and Fees for more detailed permitting information.

## MANAGING AGENCIES

USDA Forest Service - North Kaibab Ranger District  
430 South Main Street, PO Box 248, Fredonia, Arizona 86022  
Telephone: (928) 643-7395  
<http://www.fs.fed.us/r3/kai>

Grand Canyon National Park  
P.O. Box 129, Grand Canyon, AZ 86023  
Telephone: (928) 638-7888  
<http://www.nps.gov/grca>



*The short narrows of Carbon Canyon*

## 23: Lava and Carbon Canyons

**OVERVIEW:** A backpacking/packrafting trip descending the Tanner Trail with a short loop hike to Lava and Carbon Canyons, which are typically only seen by river rafters. The hike begins and ends at Lipan Point.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: BB9, BA9, AF9

**REQUIRED GEAR:** drybag, shoes with good traction, packraft, paddle and personal floatation device. A wetsuit is required for the raft trip during cooler weather.

**SPECIAL CONSIDERATIONS:** There is no water along the Tanner Trail until you reach the Colorado, so carry enough for the entire descent/ascent. Water is available at the Colorado River. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service.



**ACA Rating:** 2A V-VI

**Distance:** 26.2 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 7,400 – 2,700 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Desert View, Cape Solitude 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

**Route 1:** From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). Drive into the park and turn right (east) onto Desert View Drive. Follow this road approximately 9 miles and turn left (north) at the sign for Lipan Point.

**Route 2:** Alternately, from Flagstaff, take Highway 89 north for approximately 65 miles to Cameron. Turn left (west) onto Highway 64 and follow it approximately 30 miles to the East Entrance on the South Rim. Continue west another 2.5 miles and turn right (north) at the sign for Lipan Point.

### TRIP DESCRIPTION

From the Lipan Point parking lot, walk back up the road you drove in on a short distance to the large sign on the east that indicates the start of the Tanner Trail. The path travels east a short distance before reaching a series of fairly steep switchbacks that descend through the Kaibab, Toroweap and Coconino layers into the canyon. Watch your footing in this section as the dirt and gravel underfoot is rather loose.

After about an hour, the trail will level out somewhat at the Supai and you'll follow a short ridge past the Stegosaurus Rocks to the base of Escalante Butte with views to the left into Seventyfive Mile Creek. The trail bends to the right (east) and begins winding its way around the butte along a path that is considerably more level (though there are a few minor ups and downs). Looking up to the right as you hike, you'll be able to see the Watchtower (a Mary Colter design, built in 1932 as a view point and gift shop), a landmark that you'll



be able to spot throughout the majority of this hike. Once around Escalante Butte, the trail crosses a tributary of Tanner Creek then continues around Cardenas Butte eventually reaching a break in the Redwall Limestone that will allow you to continue your descent.

There are more steep switchbacks along a loose, rocky path as you make your way through the Redwall, then a short descent through a drainage to reach the Bright Angel Shale. The path bends left and levels out for a short distance as it winds its way along a ledge then begins dropping once again through the remainder of the Bright Angel Shale to the Dox Sandstone (a very dark brownish red sandstone prevalent in this area). From this point, you'll have great views of the river and Tanner Delta below.

The trail winds its way down along the side of a steep slope (watch your step, if you fall it might be some time before you stop rolling) before eventually leveling out. Below, it's easy walking down to the creekbed of Tanner Canyon. Follow the cairns down the creekbed and shortly you'll come to a well defined trail, which leads off to the right. If you continue straight, you'll wind up at the Tanner Delta, which has some nice camping spots and a composting toilet. We, however, will turn right onto the Beamer Trail as it travels east. The trail climbs up to the top of the Dox sandstone and follows a narrow path along a 200-foot cliff next to the river (those with a fear of heights may find this section disconcerting, but there is nothing risky about the path and the views are great). After about a half mile, the trail drops down to the beach again and continues upriver (*Note: there is one mildly confusing spot where you reach a little alcove, look for steps on the right that lead up to the base of the Dox for the continuation of the trail*).

The path travels through a few areas of deep sand and across a few minor drainages then the larger drainages of Comanche and Espejo Creeks to a fork. The split marks high and low water routes across the next section. The low water route involves a little scrambling and bushwhacking and may not be possible to follow if the water level is high; the high water route is more defined and climbs on top of the Dox Sandstone again to follow the cliff edge along a mildly exposed path. Whichever way you choose, the trails will bring you to the beach again and a sandy slog to Lava Canyon Rapids and Palisades Creek. Along the way you may see the remains of Seth Tanner's old cabin off to the right (which isn't really that interesting if you decide to hike over to it). There is a great campsite on the sand with a big fairly flat rock for spreading out your stuff right on the beach next to the rapids.

The wide mouth of Lava Canyon (your destination) lies directly across the river from Palisades. In order to get to it, follow the trail upriver across the dry wash of Palisades Creek for a few tenths of a mile, then leave the path to the left and walk to the river's edge. The goal is to be far enough upstream from Lava Canyon that you can easily paddle across the river before the current carries you into the rapids. Inflate your packraft and paddle across the river to the small, sandy beach at the upper end of the mouth of Lava Canyon.

After deflating your packraft, pick up the well used, rafter-made hiking trail as it travels up the right side of Lava Canyon past some nice camping areas. The path winds along the hillside on the right of the canyon (facing upstream) for a short distance before dropping down into the creekbed. Continuing upcanyon, the large black mass of Chuar Lava Hill will be on your right. Just past the hill, a dry streambed enters from the right

(north). Turn right and head up this wash a short distance to a use trail that departs the drainage on the right to climb up and around a dryfall. Once back in the wash above the dryfall, continue hiking upcanyon through some interesting and colorful, striated badlands to soon intersect Carbon Canyon at a point just above where it begins cutting into the Tapeats Sandstone.

The route bends right (east) to travel down Carbon Canyon through a very pleasant section of Tapeats narrows. Some climbing is required to negotiate a series of small dryfalls, but nothing that should prove terribly troublesome. Soon, the canyon widens and you will arrive at the mouth of Carbon Canyon. Walk down the beach until you are below the worst of the rapids and inflate your packraft once again. You have two options for the return trip to the delta at Tanner Canyon; 1) either paddle diagonally across the river to a point upriver from Palisades Canyon (near the spot you initially crossed) where you can retrace your steps along the Tanner Trail (basic packrafting skills required), or; 2) you can float the river the entire way to Tanner Canyon (intermediate packrafting skills required). If you choose the latter, be prepared to portage the rapids at Lava Canyon, the rapid formed by the un-named canyon between Palisades and Espejo Canyons and possibly the rapid at Espejo Canyon as well. Either method will bring you to the Tanner delta and the Tanner Trail.

When ready, deflate your packraft and follow the Tanner Trail, retracing your steps along the 9-mile hike to the rim.

#### ***AUTHOR'S RATING ★★***

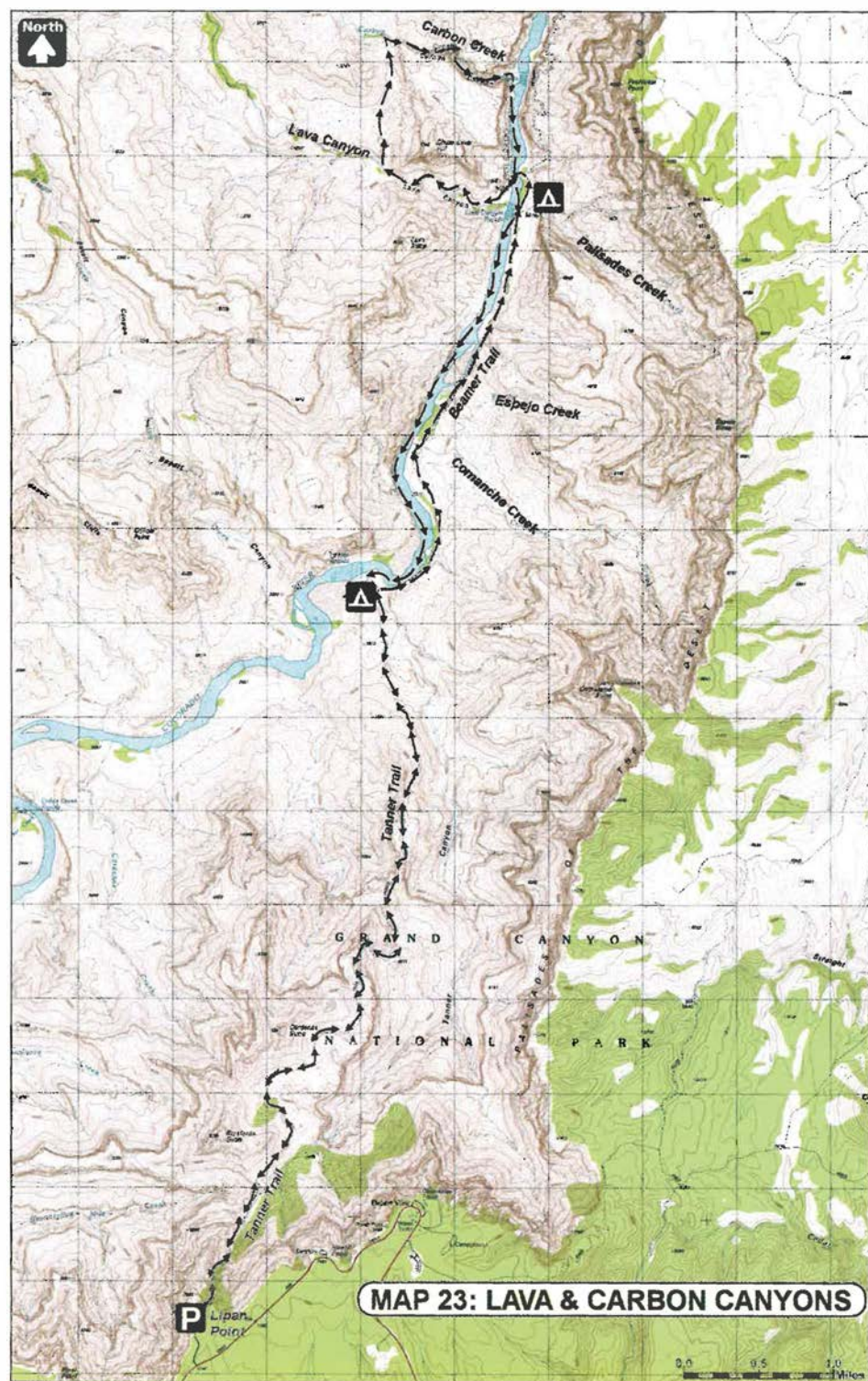
I had initially planned on completing this hike as a 2-day backpacking trip, but was thwarted by long lines at the Backcountry Office from obtaining a permit. Determined to complete the hike anyway, I decided to complete the trip as a dayhike (not really recommended) and was able to knock it out in a single, exhausting 14-hour day.



*Looking upriver from the Tanner Trail*



# CENTRAL GRAND CANYON





## 24: Papago Creek

**OVERVIEW:** A rugged hike utilizing the New Hance Trail as a jumping-off point to descend the two technical arms of Papago Creek.

**LOCATION:** Grand Canyon National Park. South Rim. Use area: BC9

**REQUIRED GEAR:** **Western Fork:** 2x150' ropes, 50' webbing, 6 rap rings; **Eastern Fork:** 2x200' ropes, 30' webbing, 2 rap rings; **plus:** harness, descender, helmet, and carabiners.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River. These canyons require good natural anchor skills. All members of the group should possess good climbing skills. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 3A V-VI	<b>Distance:</b> 17.6 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 7,015 – 2,590 ft.
<b>Time Needed:</b> 2 – 4 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Cape Royal, Grandview Point 7.5	<b>Navigation:</b> Difficult

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). Drive into the park and turn right (east) onto Desert View Drive. Follow this road approximately 14 miles to just past milepost 257. The New Hance Trail begins at the no parking signs on the north side of the road. Parking is prohibited at the trailhead (thus the signs), but there are a few pull offs on the south side of the road a short distance to the east at GPS Point - UTM: 12S 415796 mE, 3983500 mN, WGS84 Datum. If these are full, you'll have to drive a few more miles east to Moran Point and walk the road back.

### TRIP DESCRIPTION

From your vehicle, walk along the road to the start of the New Hance Trail, which meanders through the woods a short distance to the edge of the canyon. The route then descends quite steeply on a series of tight switchbacks through the Kaibab and Toroweap layers with views of Coronado Butte below. Loose rocks become more prevalent as the path enters the Coconino Sandstone to arrive at a spot below the Coronado ridgeline. The trail then bends right to descend a forested ravine through the Hermit and Supai layers. At the top of the Redwall, the path bends right to contour along the top of the limestone layer for some distance before arriving at a break that provides access to the slope below. The route continues north on a smoother path to begin descending a ridge. There is a small campsite located on the nose of the ridge at GPS Point - UTM: 12S 416253 mE, 3986315 mN, WGS84 Datum.

**APPROACH FROM NEW HANCE:** From the campsite, look east across a ravine to identify a slide on the other side that allows access to a bench above an obvious cliff

band. You'll need to get onto this bench in order to complete the hike to Papago. With the route identified, walk down the nose of the ridge to the northeast then turn right to descend along the side of the steep slope to the bottom of the ravine. Crossing the wash, simply climb up the slide identified earlier to gain the bench above the first cliff band. Remaining at this elevation, contour along the hillside to the north and east to eventually enter the Western Fork of Papago Creek at GPS Point - UTM: 12S 418190 mE, 3987636 mN, WGS84 Datum. Although the routefinding is easy (there will be an impenetrable wall to the right and a sheer cliff to the left), the hiking is not. Side-stepping along the steeply angled surface soon becomes tiresome and is made more difficult by sections of loose talus. To reach the Eastern Fork of Papago, continue across the ravine and hike eastward into the next drainage at GPS Point - UTM: 12S 418871 mE, 3987684 mN, WGS84 Datum.

**ALTERNATE APPROACH FROM THE RIVER:** From the campsite at GPS Point - UTM: 12S 416253 mE, 3986315 mN, WGS84 Datum, continue along the New Hance Trail as it descends the slope. After winding in and out of a minor tributary it travels the hillside beside Red Canyon to eventually drop into the wash itself at a point marked by a very large cairn. Follow the streambed down canyon looking for cairns that mark short sections of trail along one bench or the other. Upon reaching the river, turn right to pick up a path that winds its way past a few nice campsites near the mouth of Red Canyon through the mesquite, tamarisk and willows upstream. As you near the mouth of Papago Creek, the way along the riverbank is blocked by a section of cliff that juts into the water. Look for cairns on the right that climb very steeply up a hillside of jumbled boulders (an area some are calling the Papago Slide) to gain the top of a cliff band. The path then descends along slickrock to the mouth of Papago where a vertical, but easy, climb is required to access the beach.

Continue east across the beach to pick up the path as it travels along the rocks next to the river to eventually arrive at the sandy beach at the mouth of Seventyfive Mile Creek, which is the first significant drainage you'll encounter. Walk up this wash through a pleasant stretch of pretty narrows. After climbing a low quartzite wall on the right, the narrows come to an end and the trail heads left to contour along the rim of the narrows back towards the river. Instead of following the trail look to the right to identify a steep gravel slope that leads up to a saddle high above. Climb this slope, which becomes steeper and less stable the higher you go. Near the top, you'll be taking 3 steps for each 1 step of elevation gain as the loose gravel gives way underfoot.

Once at the top, continue straight across the saddle. Your goal now is to climb to the top of the ridge that lies in front of you to the right. The best way to do this is to first cross a steep slope of very loose gravel to gain an area on the other side where the rock is more solid. Use care when crossing this slope; if you fall it will likely be some time before you'll be able to arrest your motion. Once across the slope, climb the rocks to the right to gain the ridge where the walking becomes considerably easier. Traveling due south along the ridge the Eastern Fork of Papago Creek will eventually come into view on the right. Continue southwards along the ridge keeping the creek on your right until you come to a place where it becomes possible to descend into the streambed. Head down the grassy, rocky slope to enter the Eastern Fork of Papago Creek at GPS Point - UTM: 12S 418871 mE, 3987684 mN, WGS84 Datum. To reach the Western Fork of Papago, continue across the ravine and

hike westward into the next drainage at GPS Point - UTM: 12S 418190 mE, 3987636 mN, WGS84 Datum.

**WESTERN FORK:** Heading down the wash, you'll be faced with a downclimb, followed by a 50-foot rappel from a sling around a pinch point on the left side of a large chockstone. Rappel #2 lies a short distance downcanyon, and is 40 feet in length from a sling girth-hitched to a rock on the right. Just below is a nuisance rappel of 15 feet from a rock at the top on the left. Rappel #4 can be rigged from a knot-chock on the left, and is 65 feet in length down a fluted chute. A few chockstone obstacles then present themselves. The first can be downclimbed on one side or the other (though some may wish to have a belay), while the second is best bypassed by following a series of shelves on the left. Rappel #5 is 120 feet in length using a rock wedged under a shelf on the right as an anchor. Skirt the next small drop-off on the left to arrive at rappel #6, which will be between 50 to 100 feet in length depending on the anchor used and whether you rappel all the way to the bottom or de-rig at an intermediary shelf from where it's possible to climb the remainder of the way down (we used a rock under a shelf on the right as an anchor).

Once down, remove your harness and hike downcanyon to soon arrive at the confluence with the Eastern Fork of the canyon, which enters at a dryfall from the right.

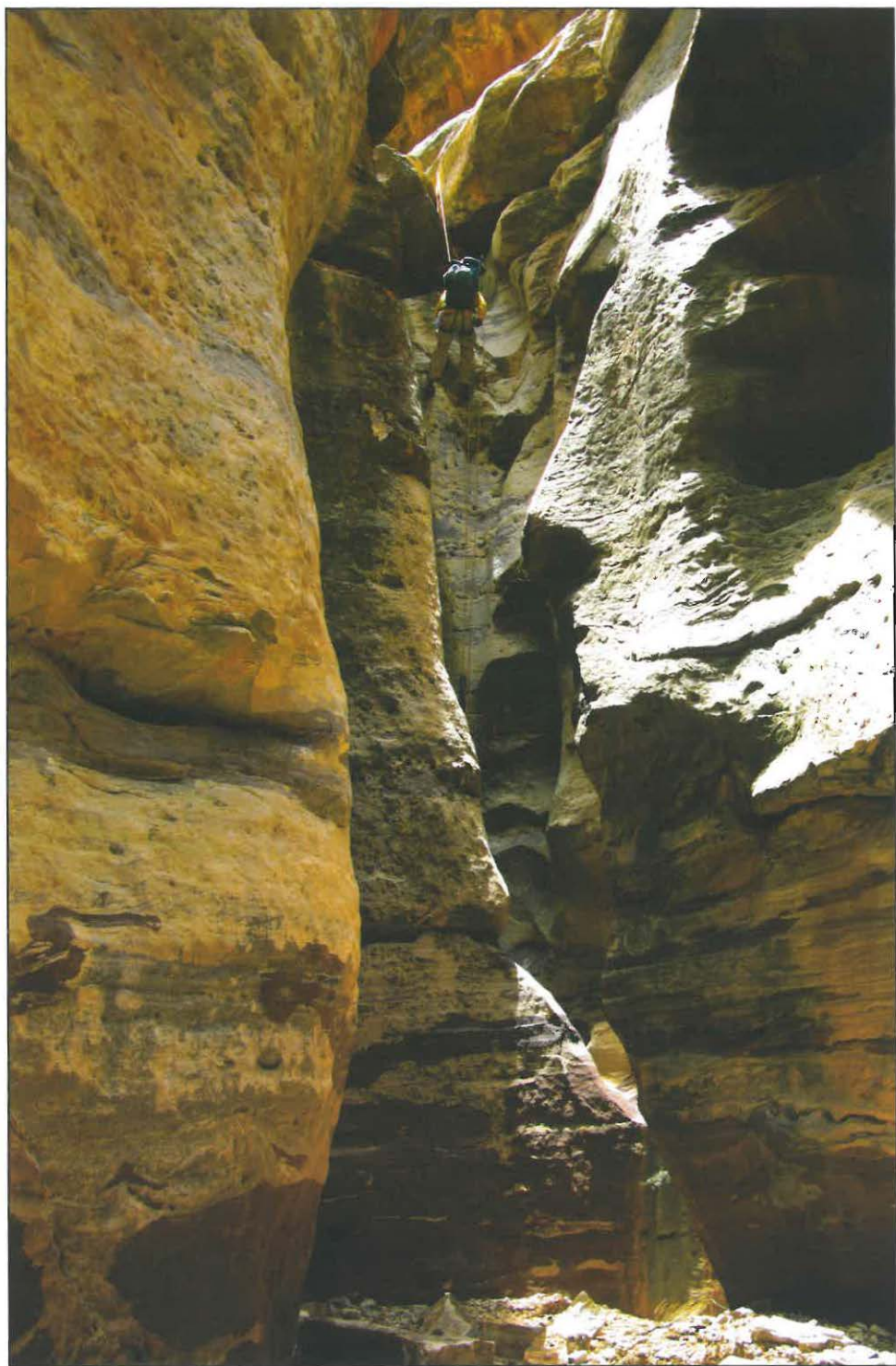
**EASTERN FORK:** Walk down the wash crossing some colorful slickrock to arrive at a large vertical drop-off. Tie a sling around a small, but sturdy tree on the left to complete a 175-foot rappel. In order to ensure an easy pull, it would be prudent to extend the webbing to the lip of the drop. The second, and final, rappel is found a short distance downcanyon and is 155 feet in length using a boulder located at the head of the drop. Below, you'll encounter a few obstacles that good climbers should be able to negotiate without the need for a rope. A final cliff band is found at the confluence of the two forks of the canyon and may be bypassed by climbing down at a slope on the left.

**CONTINUATION OF BOTH FORKS:** The walking in Papago Creek is fairly easy below the confluence of the two forks until you arrive at a dryfall, which may be bypassed by following a bench on the left a short distance to a spot that will allow you back down into the wash. Some additional hiking will bring you to a nice, if short section of narrows, which ends in a dryfall above the river. From this point, retrace your steps a short distance from the falls to climb out of the narrows on canyon left. Following this western bench as it travels above the narrows to the mouth of the canyon where you'll find cairns marking the route left (west) towards Red Canyon and right (east) towards Seventyfive Mile Creek. To exit, proceed west reversing the route to Red Canyon described in the alternate approach above. At the mouth of Red Canyon, turn left onto the New Hance Trail and follow it up and out of the Canyon to the rim and your vehicle.

#### *AUTHOR'S RATING ★★*

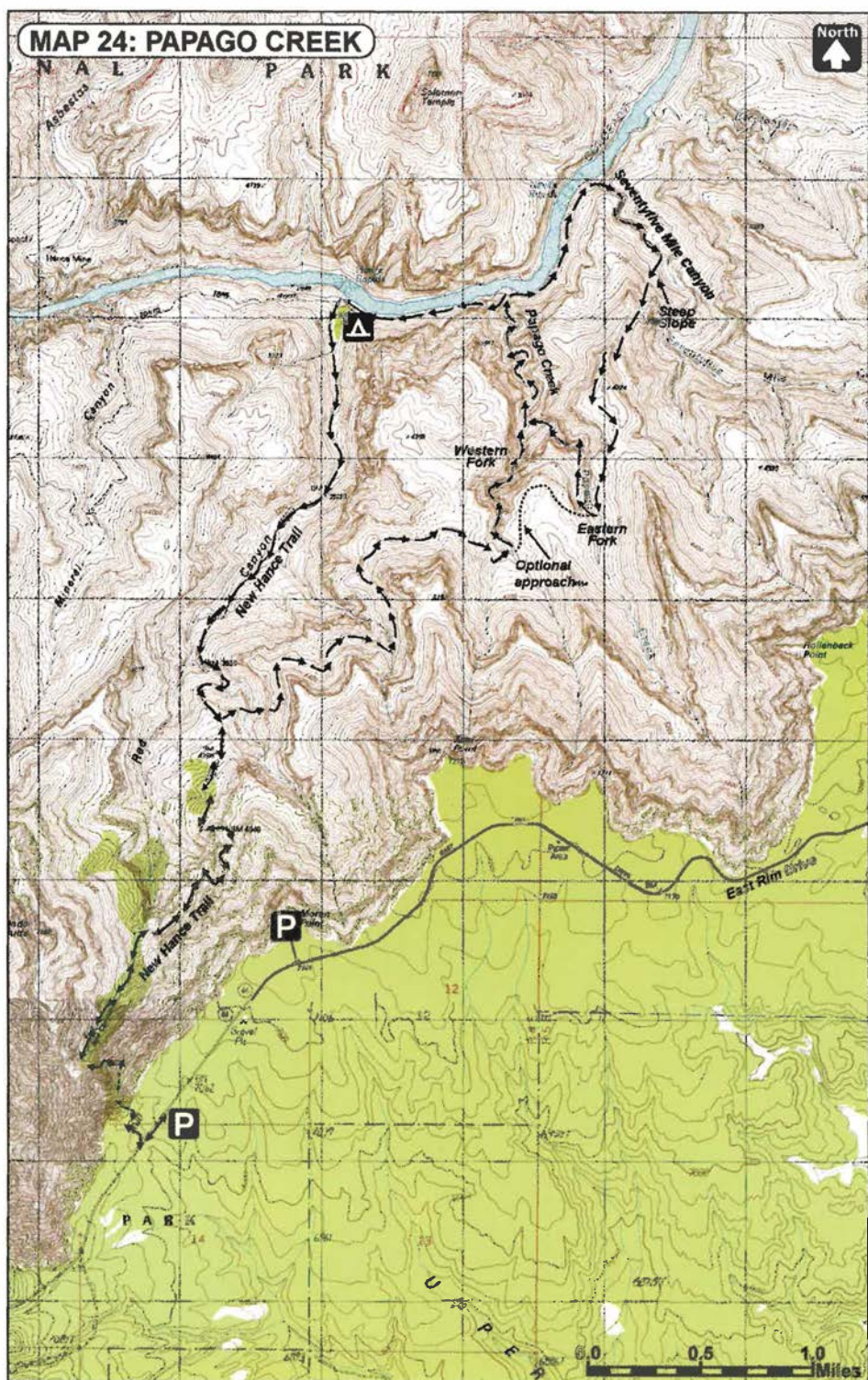
Rich Rudow and I completed this as a 2.5-day hike descending the New Hance Trail to the campsite below the Redwall then traveling cross-country to descend the Western Fork of Papago Creek. After a night at the mouth of Papago, we packed up gear for a dayhike and approached and descended the Eastern Fork of the canyon using the approach from the top of the narrows in Seventyfive Mile Creek. We hiked out the next day, taking advantage of the morning shadows to stave off the worst of the heat during the ascent of the New Hance Trail.





*The fourth rappel in the Western Fork of Papago Creek*

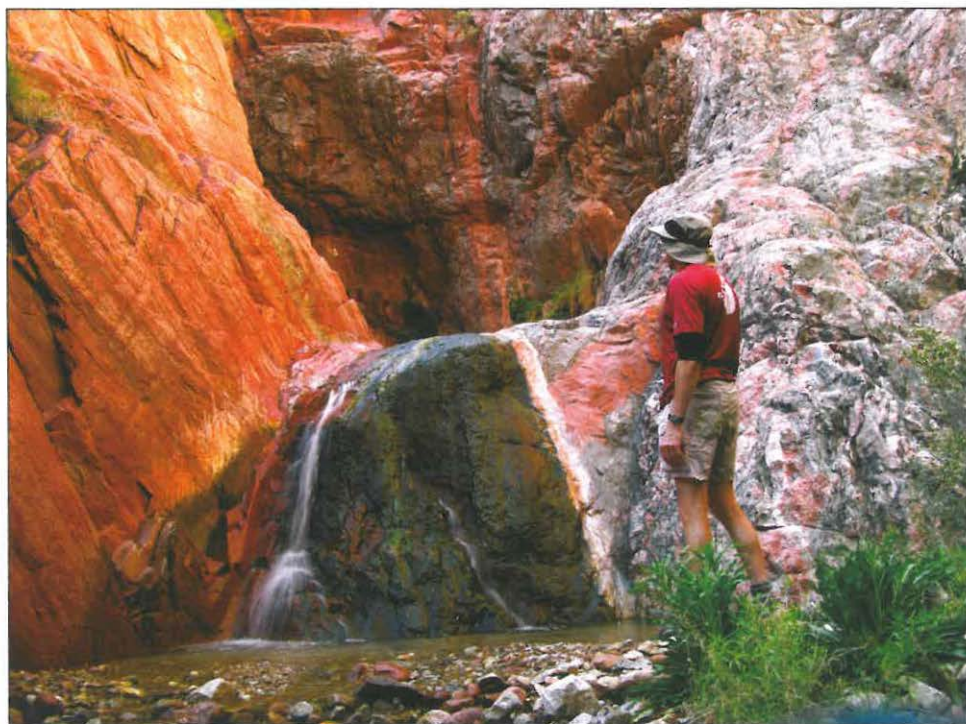








*Hance Creek: Vishnu narrows*



*Small falls in Hance Creek*



## 25: Hance Creek

**OVERVIEW:** A non-technical day hike or backpacking trip down Hance Creek to the river and back utilizing the Grandview Trail. The hike begins and ends at Grandview Point.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: BF5, BE9

**REQUIRED GEAR:** Hiking or backpacking gear and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available at Page Spring, Hance Creek and the Colorado River. A permit is required from the National Park Service if completing this hike as an overnight trip.



<b>ACA Rating:</b> 1 B IV-V	<b>Distance:</b> 19.5 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 7,400 – 2,550 ft.
<b>Time Needed:</b> 1 – 2 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Cape Royal 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). Drive into the park and turn right (east) onto Desert View Drive. Follow this road approximately 9 miles to between mileposts 252 and 253 and turn left (north) at the sign for Grandview Point. Overnight parking is found on the western side of the parking lot.

### TRIP DESCRIPTION

From the parking lot at Grandview Point, head to the lookout area at the north side of the lot to pick up the Grandview Trail. The trail descends steeply into the Canyon for 1.1 miles to reach a saddle in the Coconino with views to the west into the upper reaches of Grapevine Creek. The path bends eastward, then back to the north as it begins its long descent to Horseshoe Mesa. Soon after reaching the mesa, you'll pass a few old mining claims to reach an unsigned trail junction. Left will bring you to the designated Horseshoe Mesa campsites; however, we'll turn right to pass some rusty mining equipment and another mine.

The trail descends steeply off of the eastern edge of Horseshoe Mesa and begins dropping into a broad valley towards Hance Creek, which may be seen far below. Approximately 3 miles from the trailhead, you'll reach a signed junction at an old wheelbarrow for Page Spring (perennial), which lies a short distance down a spur trail to the right (east). Continue downwards as the path descends into a minor tributary of Hance Creek, then climbs out to reach an unsigned junction with the Tonto Trail. Remain to the right and follow the Tonto as it winds its way back into the longer main arm of Hance Creek (perennial).

Leave the Tonto Trail and walk down Hance Creek through several established campsites and into the bed of the creek. It's easy walking as you continue downstream through a short section of Tapeats Sandstone. After passing through the Tapeats layer,

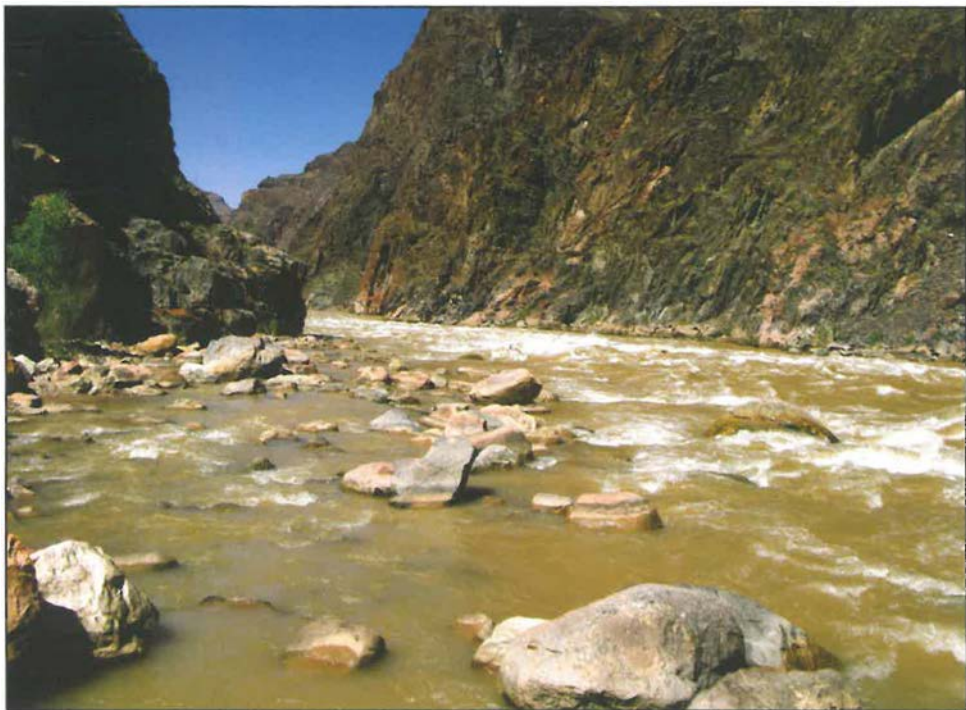
the canyon cuts into the Vishnu Schist where it begins to form some nice narrows. After some hiking, you'll eventually reach a chockstone and 10-foot drop-off, which is followed immediately afterwards by another falls. Retrace your steps a short distance and look for a rockslide on canyon right (the right side when facing downstream) that leads up to a small notch. Climb up the rockslide then back down into the canyon, the route down the opposite side is obvious. Back in the streambed, consider performing a short detour upcanyon to view the falls from below.

Continue downcanyon through some more nice narrows until you reach the top of a 30-foot drop. Head back upcanyon once again to identify a route that climbs steeply up on canyon left (west) to a point high above the canyon, then back down again via a steep talus slope covered with loose rocks. Again, a detour back upcanyon to view the falls is worth the effort. The final detour occurs just prior to reaching the river where the route is blocked by a large chockstone and 20-foot drop. An easy bypass up and around on the left (west) will lead down to the rocky mouth of Hance Creek and Sockdolager Rapid. There is one very small, but flat, sandy spot just inside the mouth of the canyon on the left for those spending the night.

When ready, return the way you came, retracing your steps to the rim.

## **AUTHOR'S RATING ★★★**

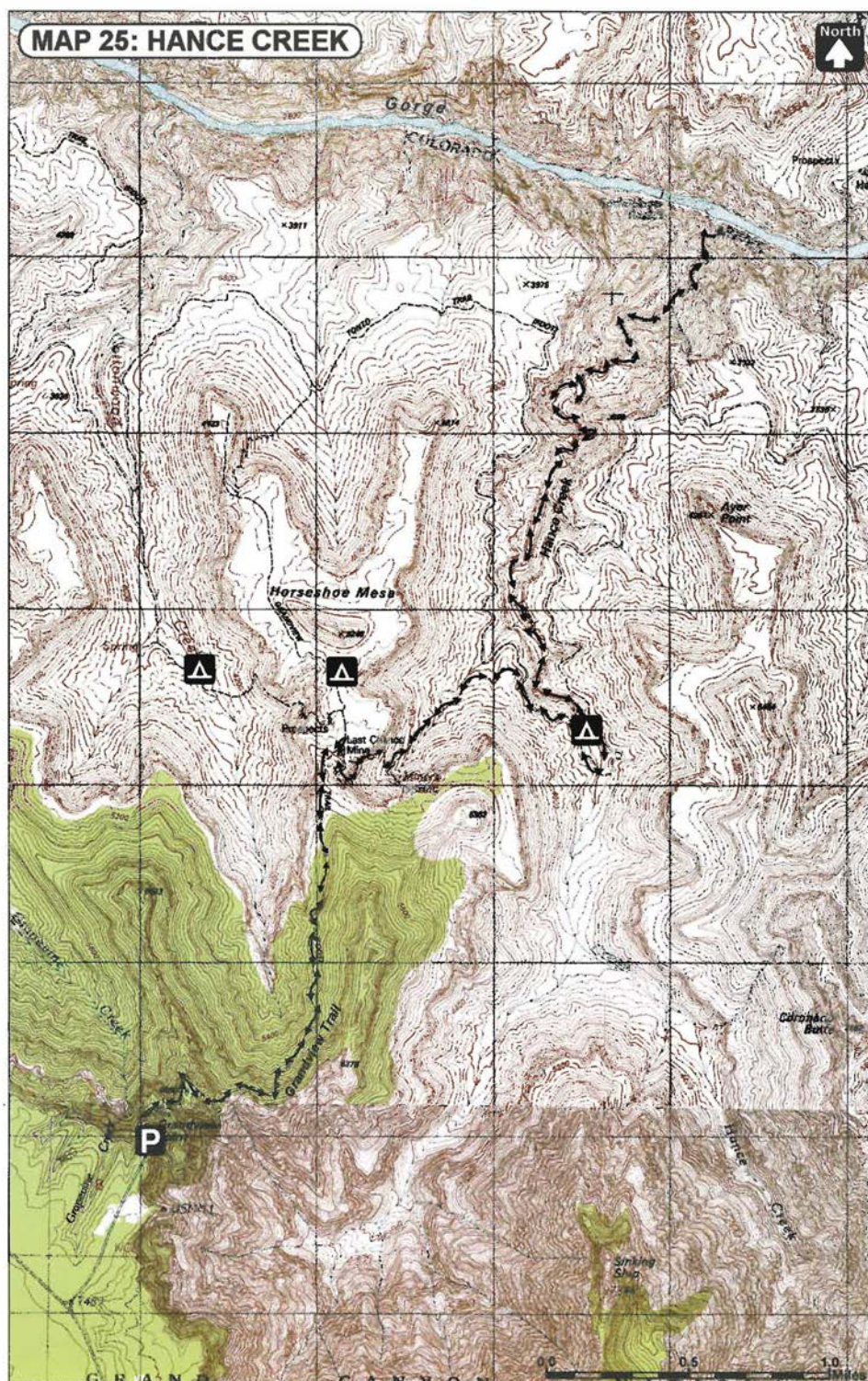
I initially planned on doing this as a solo overnight hike with a lightweight pack, but, with an early start, I reached the river by noon hiking at a quick pace. Not wanting to sit around, I decided to return to the rim that afternoon and was able to finish the hike before sunset.



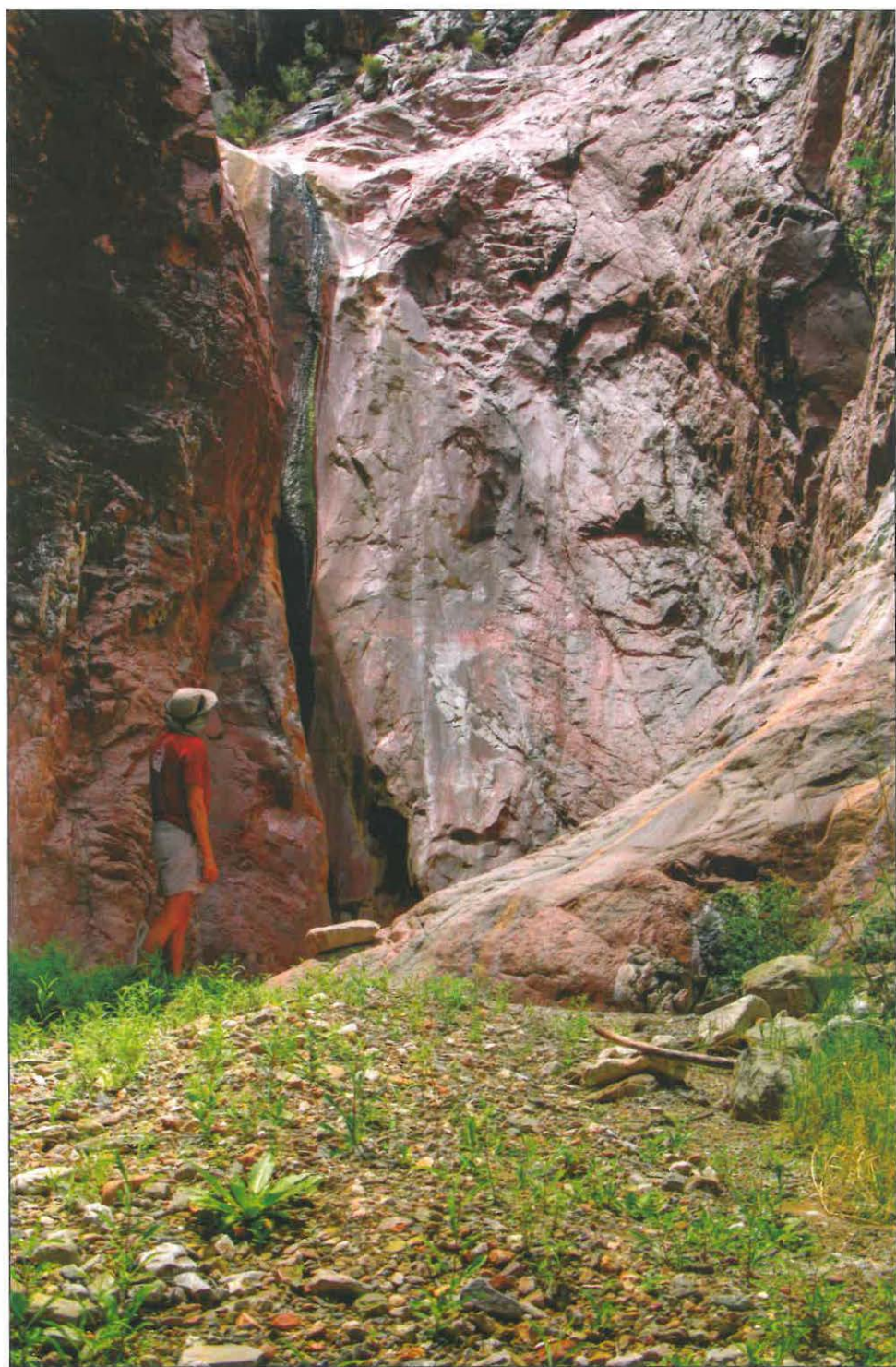
*Sockdolager Rapid*



**MAP 25: HANCE CREEK**







*Vishnu falls in Cottonwood Creek*

## 26: Cottonwood Creek

**OVERVIEW:** A non-technical day hike or backpacking trip down Cottonwood Creek to the river and back utilizing the Grandview Trail. The hike begins and ends at Grandview Point.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: BF5, BE9

**REQUIRED GEAR:** Hiking or backpacking gear and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available at Page Spring (requires a 1.5 mile roundtrip detour), Cottonwood Creek (intermittent, may be dry in summer) and the Colorado River. A permit is required from the National Park Service if completing this hike as an overnight trip.



**ACA Rating:** 1B IV–V

**Distance:** 13.0 miles

**Physical Difficulty:** Strenuous

**Elevation:** 7,400 – 2,500 ft.

**Time Needed:** 1 – 2 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Cape Royal 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). Drive into the park and turn right (east) onto Desert View Drive. Follow this road approximately 9 miles to between mileposts 252 and 253 and turn left (north) at the sign for Grandview Point. Overnight parking is found on the western side of the parking lot.

### TRIP DESCRIPTION

From the parking lot at Grandview Point, head to the lookout area at the north side of the lot to pick up the Grandview Trail. The trail descends steeply into the Canyon for 1.1 miles to reach a saddle in the Coconino with views to the west into the upper reaches of Grapevine Creek. The path then bends eastward, then back to the north as it begins its long descent to Horseshoe Mesa. Soon after reaching the mesa, you'll pass a few old mining claims to reach an unsigned trail junction. Right will take you off the mesa to the east towards Hance Creek and Page Spring; however, we'll turn left to soon pass a sign pointing back the way you came for Page Spring. Continue straight past the sign to soon reach another signed junction and left branching trail to Cottonwood Creek. This junction is located just south of the rock-walled remains of Cook's Cabin, an old miner's mess hall. Turn left (west) towards Cottonwood Creek.

The route switchbacks steeply down through the Redwall Limestone along a path covered with loose dirt and gravel to eventually arrive at the dry wash of Cottonwood Creek. The trail descends next to the wash at a more moderate grade to soon pass a streambed that enters from the left (east) that has flowing water during the cooler months. A spur trail leads



up this drainage to the intermittent spring that is the source of the flow. Continue along the trail past a few very nice campsites beneath the cottonwoods to arrive at a signed junction with the Tonto Trail. Leave the trail at the sign to begin walking down the creekbed itself.

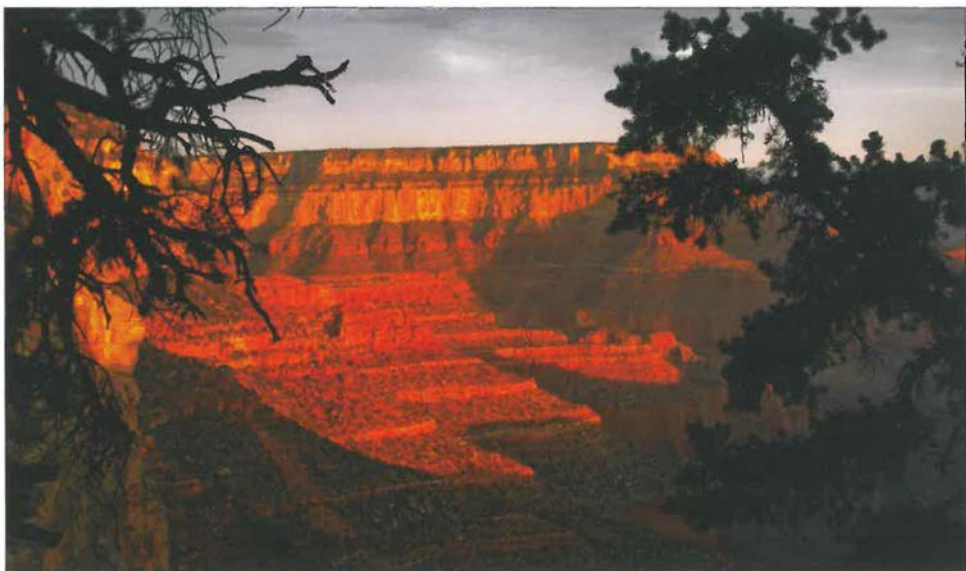
The drainage soon enters a nice stretch of narrows in the Tapeats Sandstone that contain a gurgling stream (during cooler weather), cottonwoods and few minor downclimbs. After cutting through the Tapeats, the canyon suddenly widens as it enters the Vishnu Schist. Continue downcanyon, negotiating a few minor downclimbs, until you arrive at a water-polished 25-foot pour-off. Retrace your steps back upcanyon a short distance to locate a cairned route that climbs up on the left (west) to descend back down into the canyon at a minor side drainage.

More hiking and rock-hopping will bring you to a point where the canyon drops in a series of stair-stepped pour-offs. Retrace your steps once again to locate another, fainter, cairned route on the left that climbs up the hillside to wind its way along the side of the canyon for some distance before dropping back down into the canyon via a crack and steep, scree slope.

Once in the canyon bottom, it's a short walk to a view of the river, which is blocked by a sheer pour-off. To reach the river, climb up and over a low hill on the right to descend a steep talus slope covered with loose gravel. There are a few small sandy spots in the area that might serve as a bivouac spot in a pinch, but nothing that resembles a real campsite. When ready, return the way you came retracing your steps to the rim, or use this as a jumping off point for further adventures.

## *AUTHOR'S RATING ★★*

Cottonwood provides an infrequently traveled route to the river, but unfortunately doesn't really have much in the way of scenery. Those who plan to do this as a backpacking trip might consider dropping the overnight gear at one of the campsites along Cottonwood Creek, then descending the canyon to the river and back with a lighter pack. The trip may also be completed as a long dayhike by fit hikers carrying a light pack.

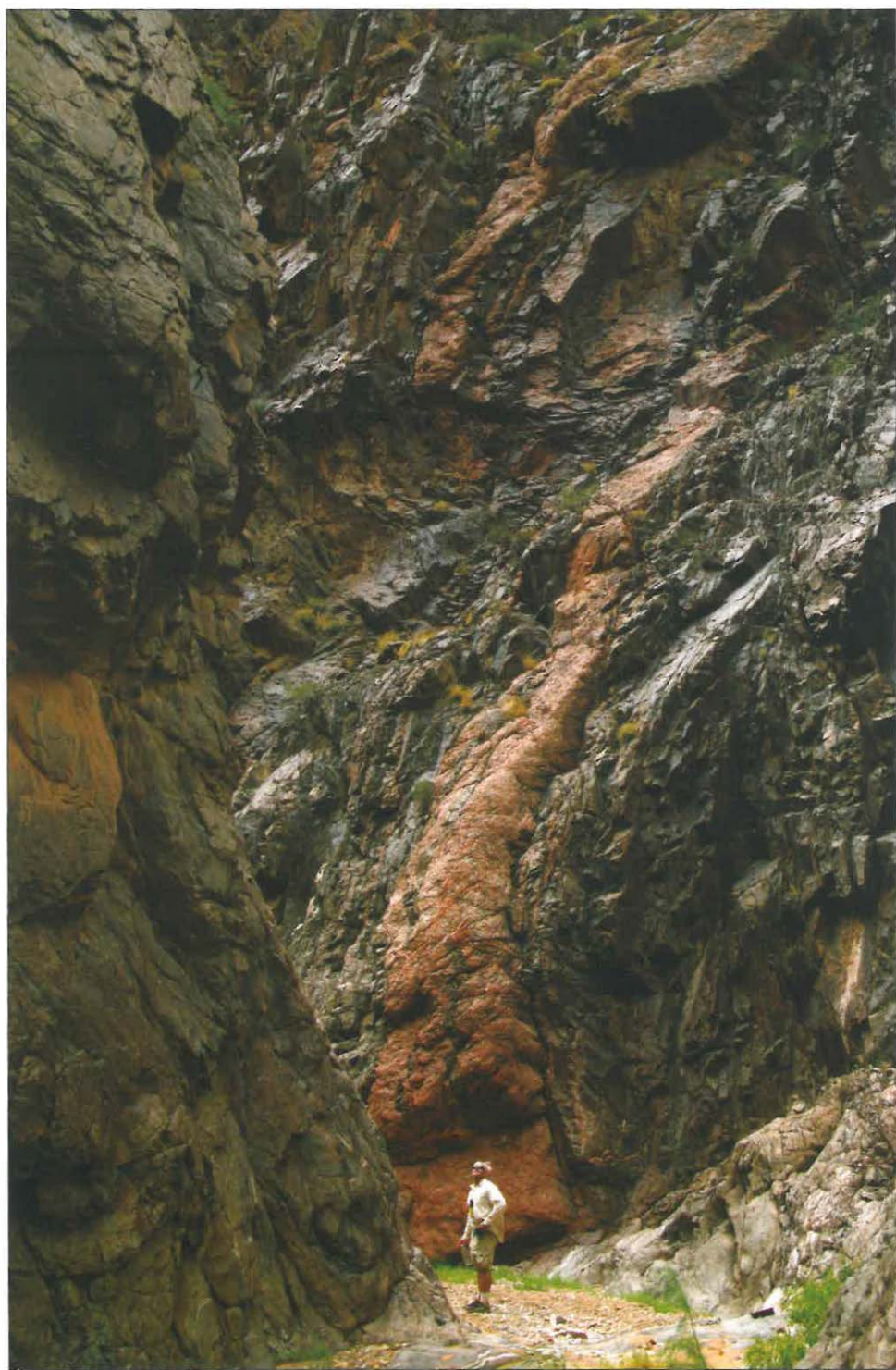


*Sunrise as seen from the Grandview Trail*









*The narrows of Vishnu Creek*

## 27: Vishnu Creek

**OVERVIEW:** This non-technical, backpacking/packrafting route was first pioneered by Harvey Butchart. The route involves a descent of Cottonwood Canyon, a packraft trip to Vishnu Canyon, an out-and-back exploration of Vishnu, followed by another river crossing to exit Grapevine Canyon. Be warned that the entry into Grapevine involves some route-finding and exposed climbing.

**LOCATION:** Grand Canyon National Park. North Rim. Use areas: BG9, AH9, BH9

**REQUIRED GEAR:** Standard backpacking gear, a packraft, paddle and personal floatation device and shoes with good traction. A wetsuit is required for the raft trip during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available at Page Spring (requires a 1.5 mile roundtrip detour), Cottonwood Creek (intermittent, may be dry in summer), at the Colorado River, in Vishnu Creek (seasonal only) and in Grapevine Creek. All members of the group should possess excellent climbing skills and a tolerance for exposure. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service.



**ACA Rating:** 2B R VI

**Distance:** 23.6 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 7,400 – 2,500 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Cape Royal, Phantom Ranch 7.5

**Navigation:** Difficult

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). Drive into the park and turn right (east) onto Desert View Drive. Follow this road approximately 9 miles to between mileposts 252 and 253 and turn left (north) at the sign for Grandview Point. Overnight parking is found on the western side of the parking lot.

### TRIP DESCRIPTION

From the parking lot at Grandview Point, follow the hike description for Cottonwood Creek Canyon to the Colorado River.

Once at the river, inflate your packraft and prepare for the 0.6-mile float trip to the take out point for Vishnu Creek Canyon. The river has a decent current, but is nice and smooth in this section. As you float downriver, look for a large outcrop of pink granite that juts into the river from the right-hand (north) bank. Though it is well hidden, Vishnu lies on the other side of this rock formation. The outcrop is easy to spot though and you will want to get out of the river at the steep bank on the right just upriver from this formation.

Deflate your raft and climb up and over the rock outcropping. As you ascend, look for a faint trail that leads over the hill to drop through a chute on the other side to the mouth of Vishnu Creek. Supposedly the canyon flows during certain times of the year; but it was completely dry when I was here. Heading upcanyon there are a few small 6 to 8-foot falls you'll have to climb.



The first is the trickiest and less experienced climbers may need a boost to get up. The next mile of the canyon is quite pretty and features numerous twists and turns between sheer walls of dark grey and black schist shot through with pink and red granite. About a mile from the river, you'll encounter a 25-foot falls which may be climbed on canyon right (left, facing upcanyon). Above this falls, the canyon quickly widens, so for canyoneers this makes a good turn-around point. Climbers and explorers can use this as a jumping-off point for further exploration.

Back at the river, the next objective is to reach the beach known by river runners as Grapevine Camp, which lies directly across the river from Vishnu Creek. Given the strength of the current at the mouth of Vishnu, it is better to climb back up and over the rocky outcrop to the point where you had earlier taken out of the river. From this point, it's a straight shot across the river to Grapevine Camp, which is one of the only nice places to spend the night in the area. This is also a popular campsite for river runners exchanging passengers at Phantom Ranch, so expect to have some company if you plan to stay overnight.

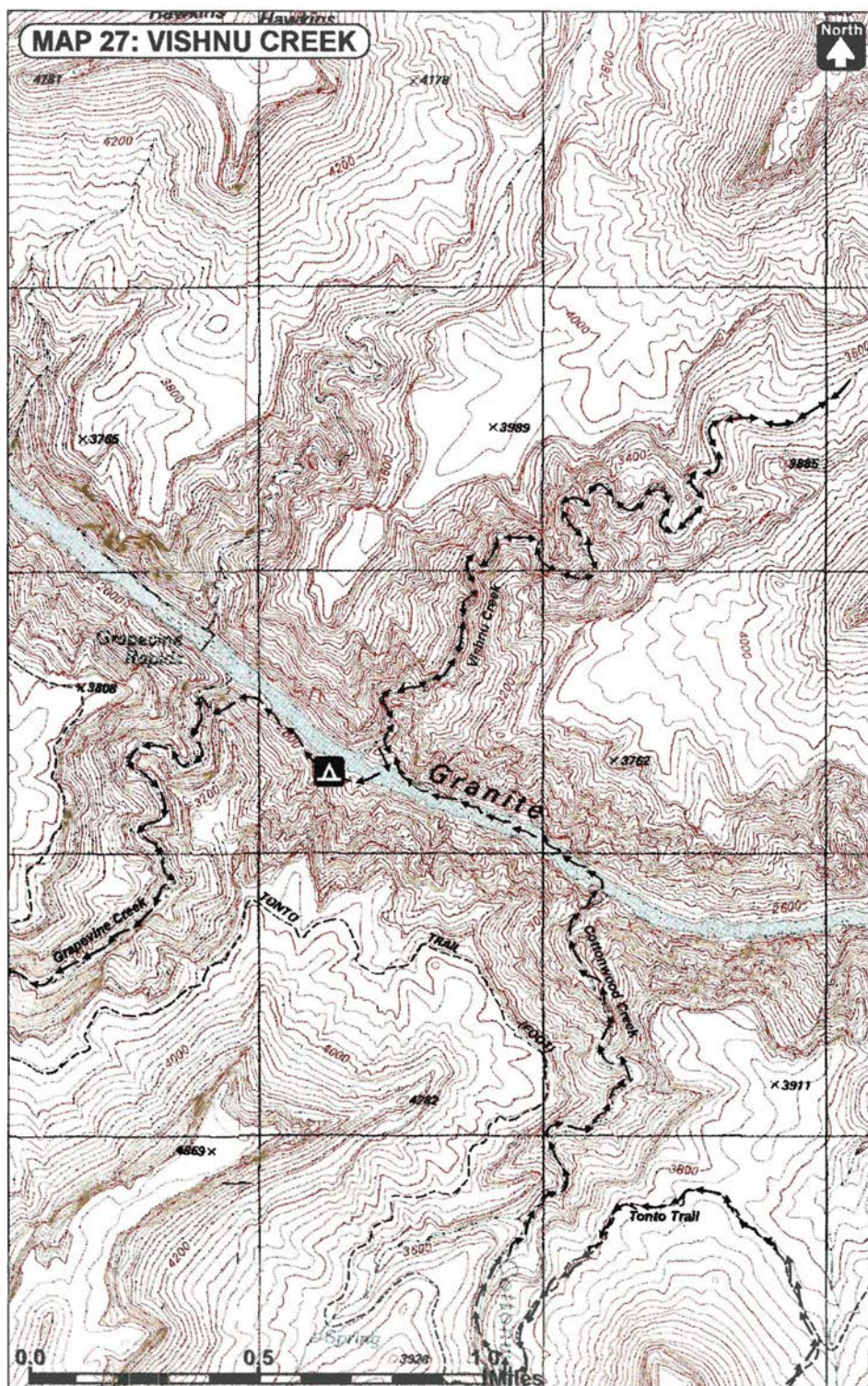
From Grapevine Camp, walk downriver to the end of the beach then continue along the rocky slope for about a quarter mile to a point a few hundred yards upriver from Grapevine Rapid. Cliffs along the river make it impossible to get into the mouth of Grapevine, and even if you did you'd soon be stopped by a pour-off a short distance inside the canyon. The only means to enter Grapevine is to climb up and over a sheer shoulder to the south. This route is rather steep and exposed in places. It also takes some route-finding to find a safe way down the other side. If not apparent already, be aware that schist, while hard, is also extremely brittle. Test all hand and foot holds before trusting your life to them and position members of the group to minimize the danger of rockfall.

First, identify the route by scanning the cliffs to the south to identify a U-shaped break that is somewhat lower than the rest. A very steep ramp leads up to this break and is the only spot that looks remotely climbable. Carefully scale this steep ramp to the lowest point in the break, which is on the right. Once across this gap, you'll be looking down a rocky cliff, interspersed with ledges, into the Grapevine drainage, which lies far below. The route down is fairly complex, somewhat treacherous and impossible to accurately describe. Suffice it to say that route-finding is required. Basically, you'll want to work your way down a series of ledges to the right (towards the mouth of Grapevine) to arrive at a point where you can clearly see the bottom of the canyon. Then, you'll follow a ledge left (upcanyon) and either descend at an exposed nearly vertical crack or climb more ledges upcanyon to find a route down that is less risky. In order to navigate this section, I suggest one or more members of the group drop their pack(s) and figure out a route before committing the group. Once a reasonable course has been determined, they can lead the group through.

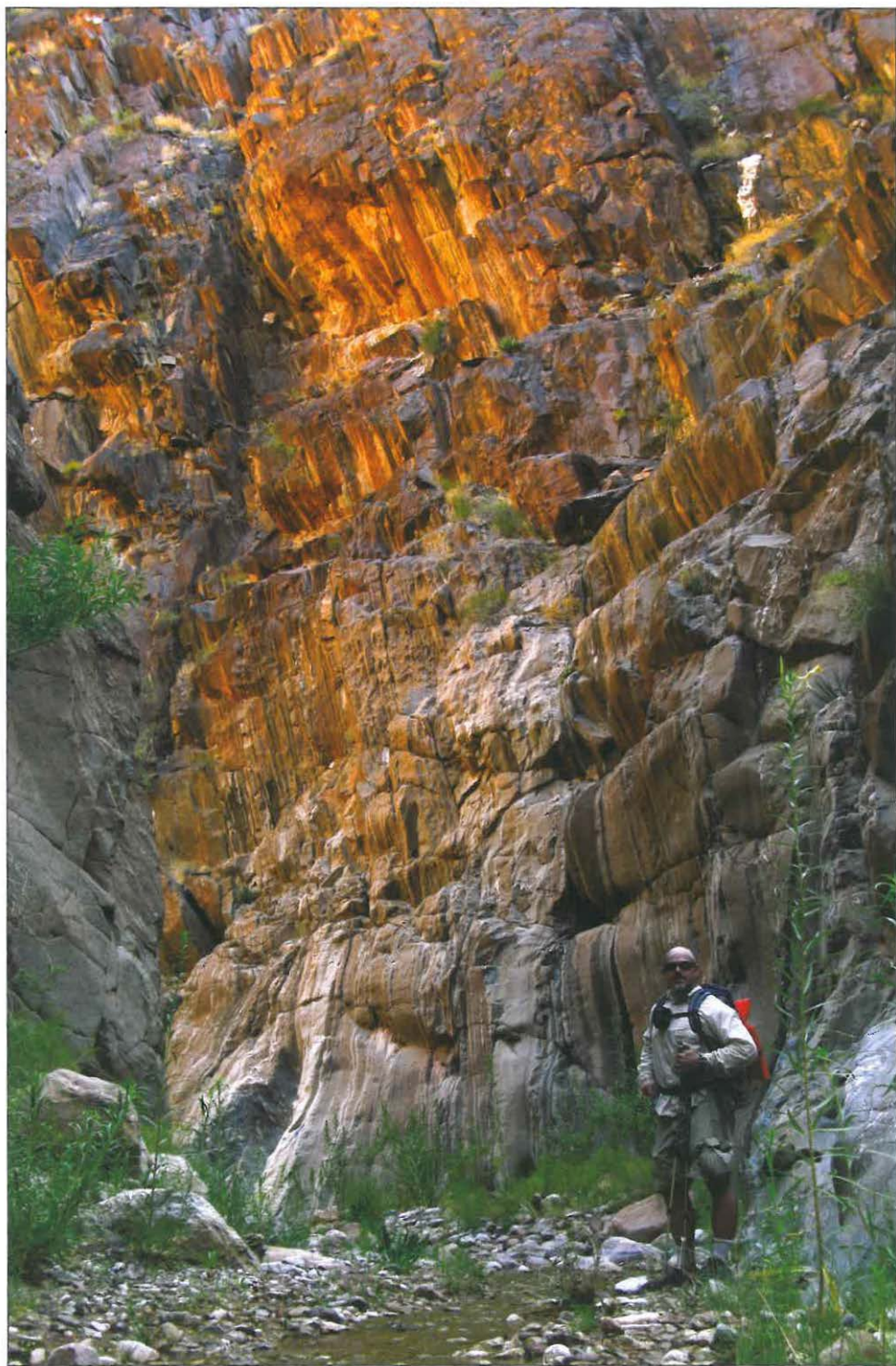
After this harrowing descent, you'll find Grapevine Creek to be a pleasant and pretty canyon with a perennial stream. To exit this drainage, reverse the directions outlined in the Grapevine Creek Canyon description later in this book. This route will take you up and out of the canyon to the Tonto Trail, which you can follow to the east (left) 5.5 miles to Cottonwood Creek. Retrace your steps to Horseshoe Mesa, the Grandview Trail and, eventually, to the rim at Grandview Point.

#### *AUTHOR'S RATING ★★★*

Though it requires a bit of work, this loop hike allows you to experience three seldom visited canyons, two of which (Grapevine and Vishnu) are quite nice. The author and a friend completed this trip in 2 long days, spending the night at Grapevine Camp. Most will prefer more time to complete this trip.







*Joe DeSalme in the narrows of Grapevine Creek*



## 28: Grapevine Creek

**OVERVIEW:** A backpacking trip to an extremely scenic granite canyon with a perennial stream and dripping springs.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: BG9, BH9

**REQUIRED GEAR:** Standard backpacking gear and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available at Page Spring (requires a 1.5 mile roundtrip detour), Cottonwood Creek (may be dry in summer), and in Grapevine Creek (perennial). This hike requires a permit from the National Park Service.



**ACA Rating:** 2B VI

**Distance:** 26.2 miles

**Physical Difficulty:** Strenuous

**Elevation:** 7,400 – 2,500 ft.

**Time Needed:** 2 – 5 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Cape Royal, Phantom Ranch 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). Drive into the park and turn right (east) onto Desert View Drive. Follow this road approximately 9 miles to between mileposts 252 and 253 and turn left (north) at the sign for Grandview Point. Overnight parking is found on the western side of the parking lot.

### TRIP DESCRIPTION

**APPROACH:** From the parking lot at Grandview Point, head to the lookout area at the north side of the lot to pick up the Grandview Trail. The trail descends steeply into the Canyon for 1.1 miles to reach a saddle in the Coconino with views to the west into the upper reaches of Grapevine Creek. The path then bends eastward, then back to the north as it begins its long descent to Horseshoe Mesa. Soon after reaching the mesa, you'll pass a few old mining claims to reach an unsigned trail junction. Right will take you off the mesa to the east towards Hance Creek and Page Spring, however, we'll turn left to soon pass a sign pointing back the way you came for Page Spring. Continue straight past the sign to soon reach another signed junction and left branching trail to Cottonwood Creek. This junction is located just south of the rock-walled remains of Cook's Cabin, an old miner's mess hall. Turn left (west) towards Cottonwood Creek.

The route switchbacks steeply through the Redwall Limestone along a path covered with loose dirt and gravel to eventually arrive at the dry wash of Cottonwood Creek. The trail descends next to the wash at a more moderate grade to soon pass a wash that enters from the left (east) and that has flowing water during the cooler months. A spur trail leads up this drainage to a spring that is the source of the flow. Continue along the trail past a few nice campsites beneath the cottonwoods to arrive at a signed junction with the Tonto Trail.

Turn left onto the Tonto Trail and follow it north as it winds its way along the rim of Cottonwood Canyon. As it nears the river, the trail bends west and then begins traveling in a more southerly direction as it follows the rim of the large drainage of Grapevine Creek Canyon. Those looking for a good place to spend the night will find at-large campsites

available where the trail crosses the eastern and western forks of Grapevine. Water is usually available in the eastern arm; if not, water abounds farther downcanyon. Campsites within Grapevine canyon itself are slim to nonexistent. It is probably better to camp at the trail crossing and take a detour with a light daypack to explore the canyon.

**CANYON:** According to the old Harvey Butchart maps, it is possible to get down into Grapevine Canyon via the drainage near the springs at GPS Point - UTM: 12S 408757 mE, 3989108 mN, WGS84 Datum, and at the small drainage a short distance later at GPS Point - UTM: 12S 408475 mE, 3989052 mN, WGS84 Datum. I haven't attempted either of these entry routes though; instead, I entered just above where the canyon forks at a point near where the trail crosses the drainage at GPS Point - UTM: 12S 407961 mE, 3988650 mN, WGS84 Datum. This latter entry requires a downclimb past a small (4-foot) band in the Tapeats, but is otherwise unproblematic.

Once in the drainage simply head downstream. The canyon is fairly lush in the upper section, but the walking is easy and only a little bushwhacking is required. Soon you'll pass a fern-covered spring located on canyon left that creates a cool and welcome shower on a warm day. Farther downcanyon is another larger spring on the right with flows sufficient to quickly fill an empty water bottle.

As you proceed downcanyon, the walls become deeper and the vegetation diminishes until you find yourself in a beautiful, narrow, stream-fed gorge. Those with decent climbing skills should be able to keep their feet dry by climbing around the creek on one side or the other, but keep your eyes peeled for tiny frogs to avoid treading on them. Approximately 3.0 miles below the Tonto Trail, you'll arrive at a chockstone and falls that can be bypassed by climbing up and around on the right. A short distance later, at a point a few hundred yards from the river, you will arrive at a large chockstone and waterfall that will block further progress. This is the turn-around point. Retrace your steps to the Tonto Trail and onward back to the rim.

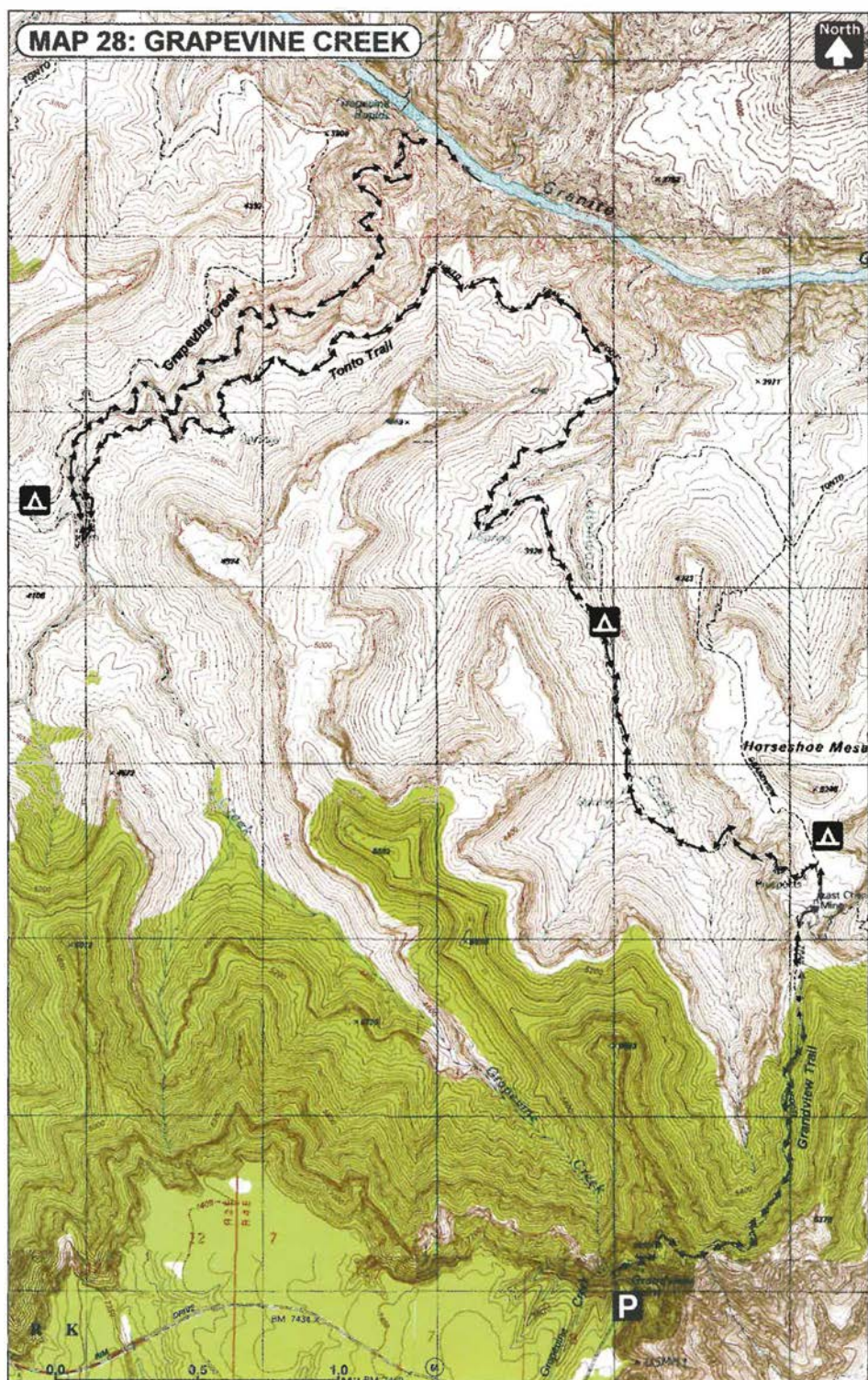
## ***AUTHOR'S RATING ★★★***

Grapevine Creek is a remarkably pretty canyon and, given the easy access and water, I'm surprised it doesn't see more visitations. This trip could be done as a 2–5 day out and back trip or as part of a longer loop hike along the Tonto Trail.



*Tonto Trail between Grapevine and Cottonwood*









*The Clear Creek Trail*



*The narrows of Clear Creek*

## 29: Clear Creek Loop

**OVERVIEW:** A pleasant backpacking trip to Clear Creek, returning to Phantom Ranch via packraft.

**LOCATION:** Grand Canyon National Park. North and South Rims. Use areas: CBG, AK9

**REQUIRED GEAR:** Standard backpacking gear, drybag, packraft, paddle and personal flotation device. A wetsuit is recommended for the raft trip.

**SPECIAL CONSIDERATIONS:** Water is available in Bright Angel Creek, in Ribbon Falls Canyon and the Colorado River. Along the Bright Angel Trail, water may also be found at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, and Indian Garden. Water at the rest houses is not available during the winter. Along the North Kaibab Trail, water may be found at the Supai Tunnel, Roaring Springs, the Pumphouse Residence, and Cottonwood Campground. Water along the North Kaibab is seasonal only and is turned off in the fall. Clear Creek flows year round. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 1B VI	<b>Distance:</b> 29.0 – 43.6 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 8,230 (n), 6,820 (s) – 2,420 ft.
<b>Time Needed:</b> 3 – 4 days	<b>Best Time of Year:</b> Spring, Summer, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Grand Canyon, Phantom Ranch, Bright Angel Point 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

The hike may be done from either the South Rim descending the Bright Angel or South Kaibab Trails, or the North Rim descending the North Kaibab Trail.

**SOUTH RIM:** From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim.

Those entering from the Bright Angel Trail Trailhead should drive to Grand Canyon Village to the trailhead located behind the Bright Angel Lodge.

Those hiking in from the South Kaibab Trail Trailhead will begin just south of Yaki Point on Yaki Point Road, but access to the trailhead is available by shuttle bus only. Free shuttle buses run regularly throughout the day. To avoid delay, try to catch the early morning Hiker's Express Shuttle, which travels directly to the South Kaibab Trailhead from the Backcountry Information Center, Bright Angel Lodge shuttle bus stop, and Grand Canyon Visitor Center.

**NORTH RIM:** The North Kaibab trailhead is located 41 miles south of Jacob Lake on Highway 67 (1.5 miles north of Grand Canyon Lodge). The small parking area offers limited space. Otherwise, transportation is available from the Grand Canyon Lodge (twice each morning; check at the lodge for times and fares) or, for those staying at North Rim Campground, it is a half-mile walk to the trailhead.

*TRIP DESCRIPTION*

**APPROACH:** The Clear Creek Trail lies a short distance north of Phantom Ranch on the North Kaibab Trail. The footpath may be approached from either the South Rim descending the Bright Angel or South Kaibab Trails, or the North Rim descending the North Kaibab Trail. The first goal of the trip is to reach Bright Angel Creek, which can be accomplished by hiking from the South Rim by hiking 9.3 miles along the Bright Angel Trail or 6.8 miles using the South Kaibab; or, from the North Rim via a 14.1-mile hike along the North Kaibab Trail.

**CLEAR CREEK:** The Clear Creek Trail departs from the North Kaibab Trail 0.3 miles north of Phantom Ranch at a signed junction. The trail was constructed in the mid-1930s by the Civilian Conservation Corp (CCC) and remains a well maintained footpath for its entire 8.4-mile length. The path departs to the east and begins a steady 750-foot climb to the base of the Tapeats, which it then follows for a while before ascending through a break onto the Tonto Platform. Just under a mile later you'll pass by large cairns on either side of the trail that mark the boundary between the Bright Angel and Clear Creek use areas. A few dry, flat campsites are located just east of the boundary.

Continue east along the trail as it winds its way around a few minor drainages before arriving at a point along the river overlooking the Zoroaster and Clear Creek drainages. The route then bends to the northeast to travel up and down some rolling hills, bypassing the large main arm of Zoroaster Canyon and a few minor forks of the Clear Creek drainage. Eventually the path descends through a break in the Tapeats into a minor arm of Clear Creek, which it then follows to the creekbed itself and several large campsites beneath the cottonwood trees (if camping in the area, be sure to hang or otherwise protect your food; mice are very active).

When ready, head down Clear Creek along a trail that exits the campsites to the south. The trail soon disappears and you'll simply continue downcanyon on one side of the streambed or the other to eventually enter a deep gorge of black, angular schist. Don't bother trying to keep your feet dry, you'll be walking in the water much of the way. The 6.7-mile hike to the Colorado River is pleasant with no significant obstacles until you reach a point a quarter of a mile from the river and a 15-foot falls. The falls is easily bypassed on the right, but you'll probably want to lower your pack and use caution on the smooth, polished rock. Below the falls, it's a short walk to the river through scenic narrows.

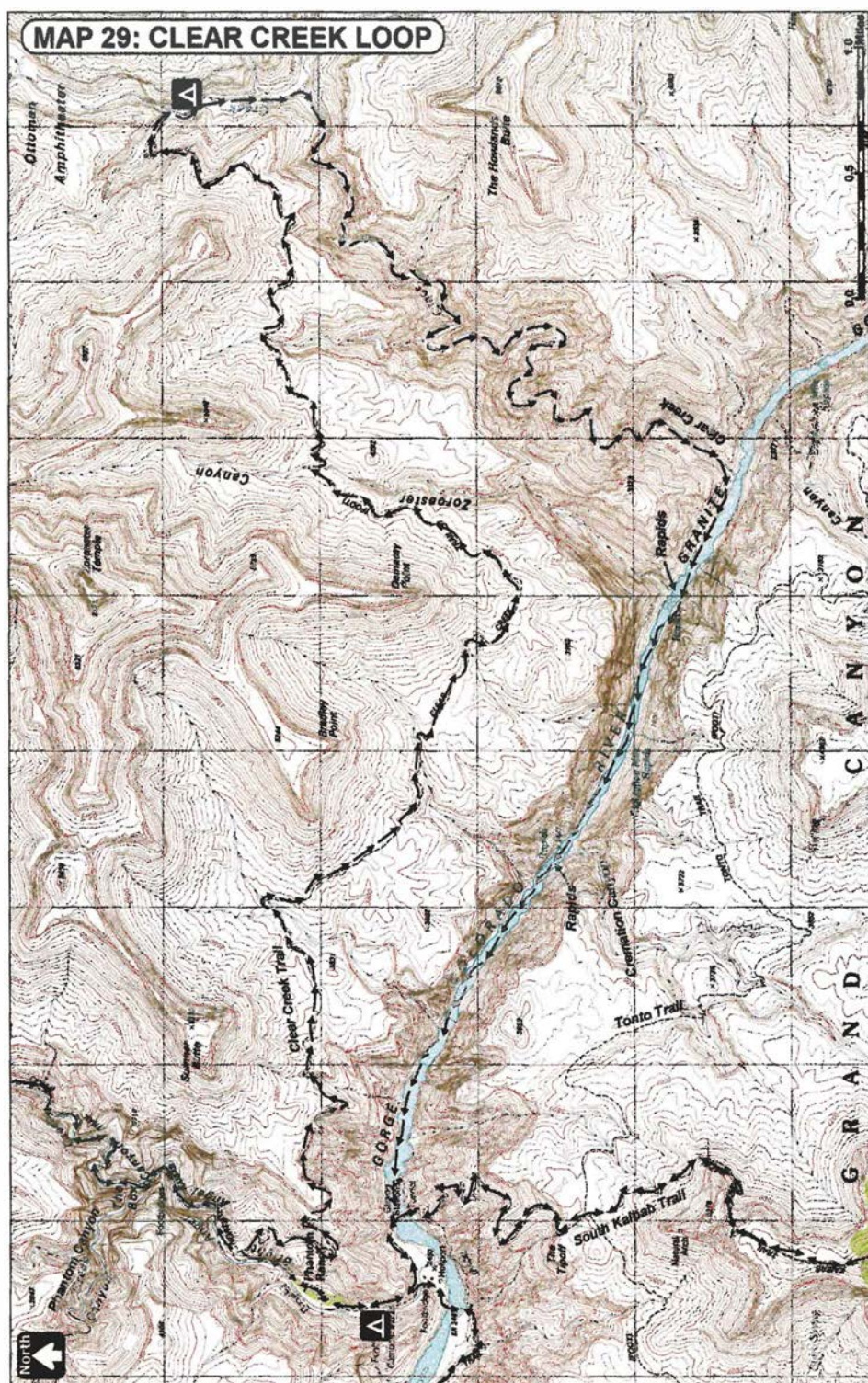
Once at the river, take a short detour over a low fin of rock on the right to inspect the river. If all looks well, you can launch your packraft right out of the mouth of the canyon for the 3.5-mile float trip to Phantom Ranch. Below Clear Creek, there are two medium riffles to negotiate before arriving at the first major obstacle, which lies 0.6 miles downriver at the mouth of Zoroaster Canyon. These rapids must be bypassed and the easiest way around is on the left (though the right may also be possible by climbing high over a bench). A short stretch of calm river is found below Zoroaster until you arrive at 85-mile Rapids 0.6 miles later. You'll want to portage these rapids on the right, and it pays to move to the right well above the rapid to prevent the swift current from sweeping you through. There is another minor rapid 0.6 miles downriver at the mouth of Cremation Canyon, these can either be negotiated in a packraft, or walked around on one side or the other. Below, it's smooth sailing the remainder of the way past the black bridge to the sandy beach and take-out point at Phantom Ranch.

When ready, return to the rim and your vehicle using the corridor trail of your choosing.

*AUTHOR'S RATING ★★ ★*

While Clear Creek is scenic enough and a popular backpacking destination, the addition of a packraft adds an element of excitement and eliminates a section of redundant hiking.

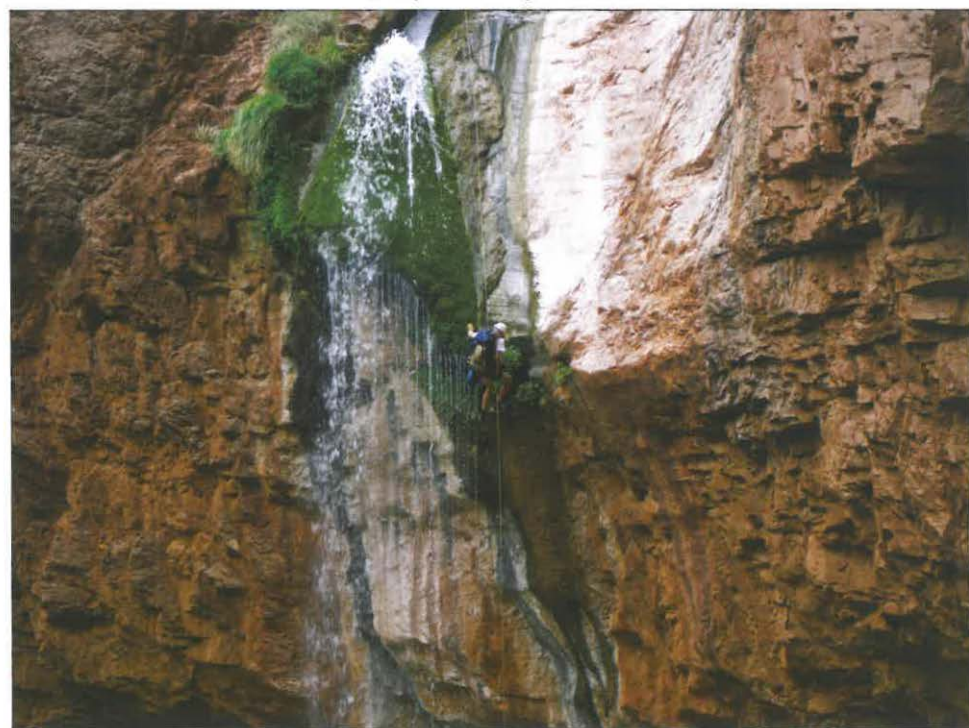








*View of Ribbon Falls from above*



*Ribbon Falls from below (Photo by Rich Rudow)*

## 30: Ribbon Falls

**OVERVIEW:** A backpacking/canyoneering trip to upper and lower Ribbon Falls. This excursion may be done as a backpacking or a technical canyoneering trip from either the North or South Rims.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: CBG

**REQUIRED GEAR:** 2x150' ropes, 30' webbing, 2 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit may be required during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available in Bright Angel Creek, in Ribbon Falls Canyon and at the Colorado River. Along the Bright Angel Trail, water may be found at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, and Indian Garden. Water at the rest houses is not available during the winter. Along the North Kaibab Trail, water may be found at the Supai Tunnel, Roaring Springs, the Pumphouse Residence, and Cottonwood Campground. Water along the North Kaibab is seasonal only and is turned off in the fall. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 16.6 – 30.2 miles

**Physical Difficulty:** Strenuous

**Elevation:** 8,230 (n), 6,820 (s) – 2,420 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Summer, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Grand Canyon, Phantom Ranch, Bright Angel Point 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

The hike may be done from either the South Rim descending the Bright Angel or South Kaibab Trails, or the North Rim descending the North Kaibab Trail.

**SOUTH RIM:** From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim.

Those entering from the Bright Angel Trail Trailhead should drive to Grand Canyon Village to the trailhead located behind the Bright Angel Lodge.

Those hiking in from the South Kaibab Trail Trailhead will begin just south of Yaki Point on Yaki Point Road, but access to the trailhead is available by shuttle bus only. Free shuttle buses run regularly throughout the day. To avoid delay, try to catch the early morning Hiker's Express Shuttle, which travels directly to the South Kaibab Trailhead from the Backcountry Information Center, Bright Angel Lodge shuttle bus stop, and Grand Canyon Visitor Center.

**NORTH RIM:** The North Kaibab trailhead is located 41 miles south of Jacob Lake on Highway 67 (1.5 miles north of Grand Canyon Lodge). A small parking area offers limited parking. Otherwise, transportation is available from the Grand Canyon Lodge (twice each morning; check at the lodge for times and fares) or, for those staying at North Rim Campground, it is a half-mile walk to the trailhead.



## TRIP DESCRIPTION

**APPROACH:** Ribbon Falls may be approached from either the South Rim descending the Bright Angel or South Kaibab Trails, or the North Rim descending the North Kaibab Trail.

Those approaching from the South Rim will want to get a camping permit for Bright Angel Creek, which is 9.3 miles in via the Bright Angel Trail and 6.8 miles in using the South Kaibab. From the campground, it is 5.8 miles one way along the North Kaibab Trail to the junction with the signed, west branching spur trail to lower Ribbon Falls.

Those descending from the North Rim will want to get a permit to camp at either Cottonwood Campground, which lies 6.8 miles from the rim or Bright Angel Creek which is a 14.1-mile hike. From Cottonwood Campground it's another 1.5 miles from the campground to the signed, west branching spur trail to lower Ribbon Falls.

**RIBBON FALLS:** From the signed junction of the North Kaibab/Ribbon Falls Trails, head west across the footbridge towards Ribbon Falls. Immediately after crossing the bridge an unsigned, but well trodden trail splits off to the right. This is the trail to upper Ribbon Falls, while the path to lower Ribbon Falls proceeds left. Turn right onto the unsigned path, which winds its way to the hillside to climb steeply up to a bench above the level of the falls. The trail then follows the top of the bench to eventually drop into the drainage above. A short jaunt upcanyon will bring you to the upper falls.

To get above the upper Ribbon Falls, travel back downcanyon to identify the first possible place to climb the hillside on canyon right to get on top of the cliff band in which the falls is located. Although there is no trail and the rock is loose in places, the route is fairly straightforward. Once above the cliff band, turn right and hike along the slope above the cliff to the northwest. The way is marked with a few scattered cairns, but they aren't needed. Simply follow the path of least resistance until you are above the falls, and then continue upstream along the rim until the walls of the drainage diminish to a point where you can climb down into the canyon.

Once in the streambed, simply head downstream. The canyon is a bit brushy but there are no significant obstacles. Soon you will reach the top of the falls, which can be rappelled by rigging a sling from a pinch point formed by two large boulders on canyon left. If using this anchor, be sure to place a rock or two in the obvious crack through which the rope will pass in order to prevent it from becoming stuck. The rappel consists of two drops with a platform in between totaling 150 feet in length. The second stage of the drop descends a pretty, mossy chute (place your feet carefully to avoid damaging the plant life).

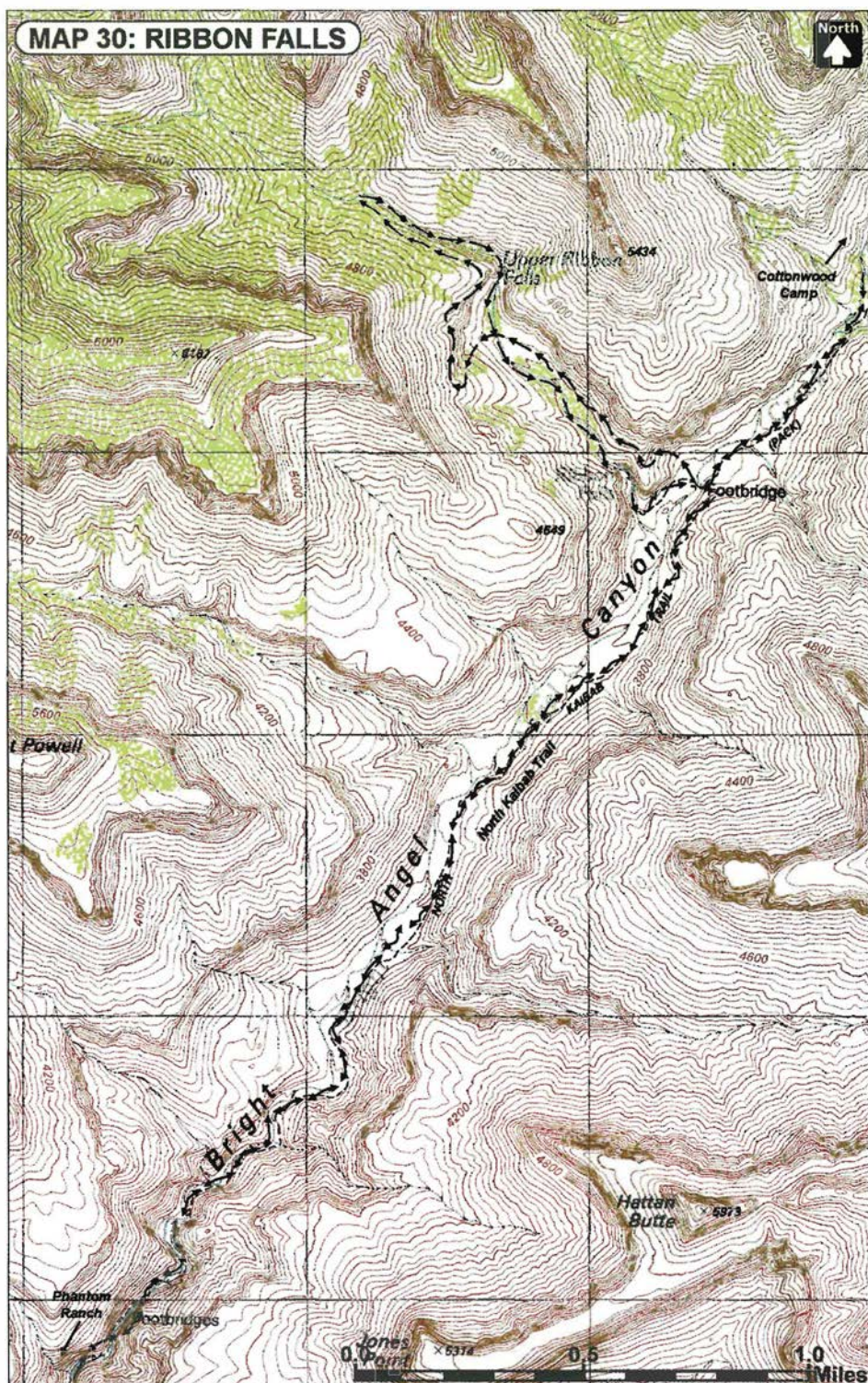
Once down, retrieve your rope and proceed downstream to lower Ribbon Falls. The route is rather brushy in places making the streambed the best means of travel. Just above Ribbon Falls the brush abates and you'll have to complete a 5-foot downclimb on slick, water polished rock. Just beyond lies the falls itself. The rappel is 130 feet in length to the top of the travertine dome from a knot-chock in a vertical crack on canyon right. There is a well traveled footpath from the top of the dome back down to the canyon floor. It would also be possible to rappel the entire falls with a 200-foot rope.

When ready, retrieve your ropes and return via whichever trail used on the way in.

## AUTHOR'S RATING ★★

Though a bit of a stunt, the falls are very pretty and the rappel provides a unique viewpoint of an iconic Grand Canyon landmark

**MAP 30: RIBBON FALLS**







*Boulder Creek*



## 31: *Cremation Creek, Lonetree Canyon & Boulder Creek*

**OVERVIEW:** Three technical canyoneering loops that descend the rather vertical drainages of Cremation Creek, Lonetree Canyon and Boulder Canyon to the Colorado River. A packraft is required to get from the mouths of these canyons to Phantom Ranch and a trail back to the rim. Lonetree may be completed via an alternate climbing route, which eliminates the need for river travel.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: BJ9, CBG, CIG

**REQUIRED GEAR:** **Cremation Creek:** 2x200' ropes - be sure the rope is no less than 200 feet in length, every bit is required, 40' webbing, 4 rap rings; **Lonetree Canyon:** 2x200' ropes, 40' webbing, 5 rap rings; **Boulder Creek:** 2x150' ropes, 40' webbing, 4 rap rings; **plus:** harness, descender, helmet, carabiners, drybag, shoes with good traction, packraft, paddle and personal floatation device. A wetsuit is recommended for the raft trip.

**SPECIAL CONSIDERATIONS:** Water is intermittently available in Cremation Creek, Lonetree Canyon and Boulder Creek and reliably at the Colorado River and at Phantom Ranch. Each of these canyons calls for excellent natural anchor skills. River travel is required in order to complete these trips though may be avoided in Lonetree Canyon by those with good climbing skills and some tolerance of exposure via an alternate climbing route. A permit is required from the National Park Service if completing these hikes as overnight trips.



<b>ACA Rating:</b> 3A IV–VI	<b>Distance:</b> 15.5 – 25.4 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 7,200 – 2,400 ft.
<b>Time Needed:</b> 1 – 3 days each	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Grand Canyon, Phantom Ranch 7.5	<b>Navigation:</b> Moderate

### *DRIVING DIRECTIONS*

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the South Kaibab Trailhead just south of Yaki Point on Yaki Point Road, but access to the trailhead is available by shuttle bus only. Free shuttle buses run regularly throughout the day. To avoid delay, try to catch the early morning Hiker's Express Shuttle, which travels directly to the South Kaibab Trailhead from the Backcountry Information Center, Bright Angel Lodge shuttle bus stop, and Grand Canyon Visitor Center.

### *TRIP DESCRIPTION*

From the South Kaibab Trailhead, pick up the dusty, well maintained South Kaibab Trail as it travels steeply down through the upper layers of the canyon. After traveling 1.5 miles and dropping 1,200 feet, you'll reach Cedar Ridge, which has a composting toilet. Another 2.9 miles and 2,000 feet of elevation loss will bring you to another composting toilet and junction with the Tonto Trail.

**Shortcut:** A shortcut is available for those heading east on the Tonto Trail. Instead of hiking the South Kaibab all the way to the trail junction on the Tonto Plateau depart the trail to the south (right) at GPS Point - UTM: 12S 402334 mE, 3993813 mN, WGS84 Datum along a faint trail. The route follows a minor ridge south and slightly east to intersect the Tonto Trail 0.4 miles later.

**CREMATION CREEK:** Turn right (east), and follow the Tonto Trail 1.5 miles to the first major drainage, which is the western arm of Cremation Creek at GPS Point - UTM: 12S 403239 mE, 3993762 mN, WGS84 Datum. Leave the trail and hike downcanyon. It's easy walking through the Tapeats to the junction with the eastern arm of the canyon. Below the junction, the drainage begins cutting into the Vishnu Schist and forms some pleasant sections of narrows. The technical section begins where the canyon makes a sharp jog to the right (east), dropping 600 feet in a tenth of a mile and requiring four long rappels in quick succession.

The first rappel is 100 feet in length from a pinch point at the top of the drop. The rappel travels around two corners, which will add some resistance to the pull, though fortunately the rock is smooth and polished. Rappel #2 is exactly 200 feet in length from either a constructed rock pile or a group of tamarisk. Extend the webbing right to the edge of the drop to ensure the rope reaches to the bottom. Rappel #3 is 180 feet in length from a single bolt and hanger on the right. Rappel #4 has more of a slope than the others, and is 150 feet in length from a knot-chock in a crack on the left.

Before removing your harness, walk downcanyon a short distance to the next dryfall. The drop may be bypassed with exposure, by skirting it along a narrow ledge on the right. Those uncomfortable with the move may prefer to rappel this drop instead. Below, it's safe to remove your harness and walk the remainder of the way to the Colorado River. Some minor climbing and route-finding is required to get down safely, but nothing terribly difficult.

**LONETREE CANYON:** Turn right heading east on the Tonto Trail. The trail crosses the three arms of Cremation Creek, then a minor un-named wash before circling Pattie Butte to arrive at Lonetree Canyon at GPS Point - UTM: 12S 405762 mE, 3992357 mN, WGS84 Datum about 5 miles after departing the South Kaibab Trail. There is a small campsite on the right side of the creek a short distance below where the trail crosses the wash.

Walk downcanyon following the wash through the Tapeats Sandstone. Look for use trails that soon appear on one side of the drainage or the other that make for easier travel. After about 15 minutes of hiking, you'll need to re-enter the creekbed as it begins cutting into the Vishnu Schist. Five minutes later, you'll arrive at the first rappel, which is 80 feet in length down a narrow water-polished shoot using a small, but sturdy tree at the top as an anchor. Just beyond is rappel #2, which is 15 feet long from a rock wedged in a crack on the right. The next drop may be bypassed by climbing around on the right to arrive at rappel #3. We used a rock wedged under a large boulder on the right a short distance down from the top of the drop as an anchor to complete a 200-foot rappel.

From the base of this drop, look to the left to spot a narrow ridge running parallel to the canyon featuring a steep gully that terminates at a small saddle. This gully is the exit route for those choosing to climb back out of the canyon as an alternative to floating the river. With the exit identified, continue downcanyon to arrive at rappel #4, which is 50 feet in length using a pinch point formed by two large boulders at the top as an anchor. This is followed by the fifth and final rappel, which is 160 feet in length from a rock wedged in a crack on the left.



*Cremation Creek: The upper Vishnu Schist*

Once down, continue downcanyon past the steep gully on the left that serves as an optional exit route. Several downclimbs are necessary to negotiate a few obstacles on the way to the Colorado River. Less experienced climbers may prefer a belay in places due to the fact that the schist has been polished smooth and is quite slick.

**Optional Climber's Exit:** Those wishing to avoid river travel can climb back out of the canyon by first retreating back to the gully mentioned earlier (now on the right, facing upcanyon). Follow these directions closely and keep an eye out for a few cairns that mark the route at infrequent intervals. The first order of business is to climb this steep gully to the saddle at the top of the ridge. Use considerable caution as you ascend, the rock is loose and very crumbly in places and poses a danger to both the climber and to those below. Once at the saddle, skirt a minor obstacle to the right, then climb directly up the ridgeline (using hands where necessary) until the way forward is blocked by a cliff. Leave the ridge to the left at this point and continue upwards until you can gain the ridgeline once again at a second obvious saddle. Cross the saddle to the right side of the ridge and follow the steep, grassy slope upwards until you gain the top of the ridge. You are now at the base of a rocky slope. Ascend the slope upwards and to the left to the top of a minor ridge located just above the Lonetree drainage you so recently descended. Walk down into the wash and retrace your steps back to the Tonto Plateau and the Tonto Trail.

**BOULDER CREEK:** Turn right, heading east on the Tonto Trail. The trail crosses the three arms of Cremation Creek, then a minor un-named wash before circling Pattie Butte to arrive at Lonetree Canyon at GPS Point - UTM: 12S 405762 mE, 3992357 mN, WGS84 Datum about 5 miles after departing the South Kaibab Trail. Continue east another 2.5 miles crossing an un-named drainage along the way to reach a minor western tributary



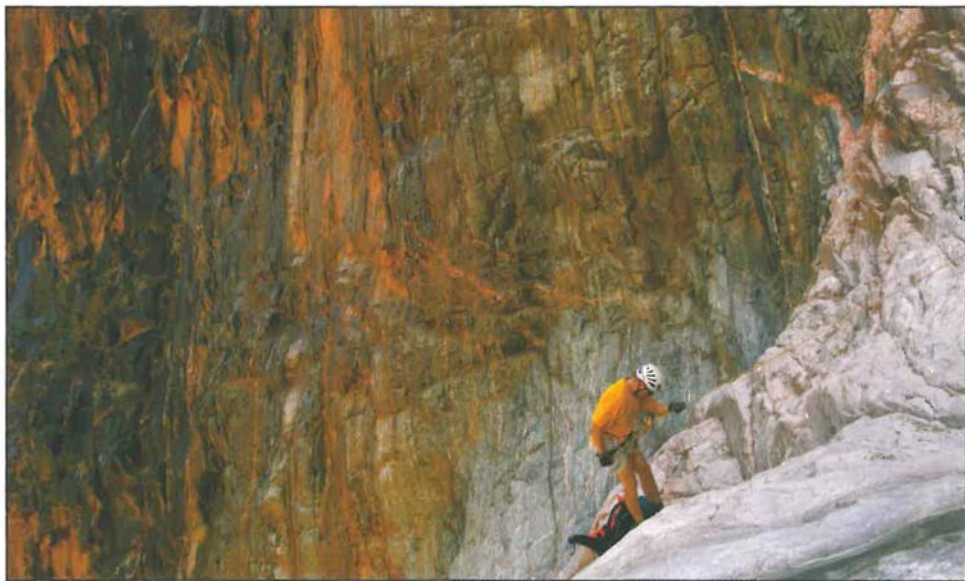
of Boulder Creek located at GPS Point - UTM: 12S 407043 mE, 3991160 mN, WGS84 Datum. This minor drainage may be used to gain entry to Boulder Creek. It may also be possible to enter the creek at the point where the Tonto crosses the main drainage; however, the latter will require at least one rappel to get through a cliff band in the Tapeats layer (I have not completed this route).

Entering the minor western drainage, you'll be faced with a few downclimbs on Tapeats ledges. The easiest route is on the left and requires you to climb under a boulder before completing a short chimney downclimb (which featured the gnawed remains of a bighorn sheep at its base when I was here, apparently the victim of a mountain lion). Once down, simply head downcanyon to enter the Vishnu Schist, which soon forms some nice narrows.

After completing a 12-foot downclimb (passing packs is recommended), you'll arrive at the first rappel, which is 50 feet in length using a sling around a fractured piece of rock located on a ledge on the right. Rappel #2 is a 100-foot 2-stage rappel using a rock wedged in a crack on the right at the top of the drop. After winding around a few corners, you'll arrive at another 2-stage rappel into a narrow hallway, which is overseen by a towering schist monolith. The rappel is 125 feet in length using a constructed rock pile at the top as an anchor. The next rappel (#4 if you're counting) is 120 feet in length from a sling around a boulder in the streambed down a narrow crack (alternatively the crack may be avoided by routing the ropes over the cliff band to the left of the watercourse).

Continuing downcanyon, you'll be faced with a tricky downclimb/slide on the right (a belay may be required for some) followed by a final rappel, which is 45 feet in length using a large boulder on the right as an anchor. Once down, remove your harness and hike the remainder of the way to the Colorado River.

**RIVER EXIT:** At the river, inflate your packraft and prepare for the float to Boat Beach near Phantom Ranch. From Boulder Creek, you'll float 1 mile to Lonetree Canyon portaging Eightythree-Mile Rapids on the left side of the river along the way. On the 2-mile



*The start of the third rappel in Cremation Creek*

float between Lonetree and Cremation there are two medium riffles to negotiate just below Clear Creek before arriving at the first major obstacle, which lies at the mouth of Zoroaster Canyon. The Zoroaster rapids should be bypassed, and the easiest way around is on the left (though the right may also be possible by climbing high over a bench). A short, calm stretch of river exists below Zoroaster until you arrive at 85-mile Rapids 0.6 miles later. You'll want to portage these rapids on the right, and it pays to move to the right well above the rapid to prevent the swift current from sweeping you through. There is another minor rapid 0.6 miles downriver at the mouth of Cremation Canyon, these can either be negotiated in a packraft, or walked around on one side or the other. Below, it's smooth sailing the remainder of the way past the black bridge to the sandy beach and take-out point at Phantom Ranch. The hike back to the rim can be accomplished using either the Bright Angel or South Kaibab Trails.

#### AUTHOR'S RATING

Cremation Creek and Lonetree Canyon: ★★      Boulder Creek: ★★★★★

Cremation Creek lies at the bottom of Cremation Point, an area that is rumored to get its name from the fact that Indians used to cremate bodies and throw the ashes over this cliff (*Grand Canyon Place Names* – Byrd H. Granger). Those who choose to descend the canyon on a summer day when temperatures at Phantom Ranch are 112°F, like Rich Rudow and I did, will find another reason to consider the canyon to be aptly named.

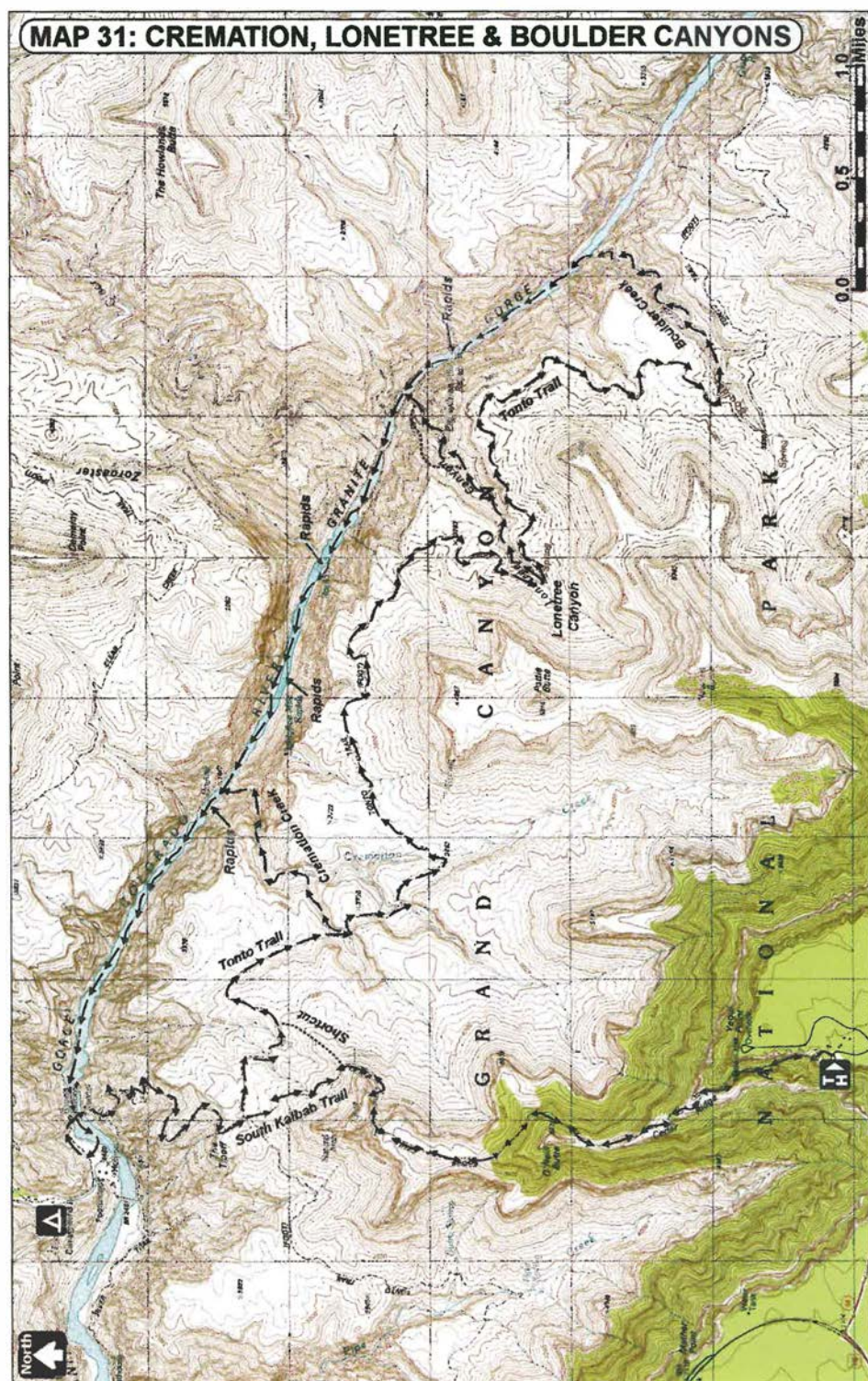
Following a summer descent of Cremation we returned early the following March during the cold and wet El Nino winter of 2010 to descend Lonetree Canyon (exiting via the climbing route) and Boulder Creek. Low river levels made the river somewhat more challenging to negotiate in a packraft and I ended up flipping my boat at Cremation after poorly judging the correct line. I managed to grab my raft and pack during the subsequent swim and, with some help from Rich, was able to get safely to shore. Speaking from experience, a wet or drysuit is essential if packrafting in cold weather.



*The Colorado River at the mouth of Lonetree Canyon*



MAP 31: CREMATION, LONETREE &amp; BOULDER CANYONS





## 32: Phantom Creek

**OVERVIEW:** A non-technical backpacking trip to Phantom Creek. There are several ways to complete this trip. The loop described here begins at the South Rim and descends the South Kaibab Trail and ascends the Bright Angel Trail on the return.

**LOCATION:** Grand Canyon National Park. South Rim (also accessible from the North Rim). Use areas: CIG, CBG, AP9, TRA (day use only)

**REQUIRED GEAR:** Standard backpacking gear, 1x40' rope for a hand-line will prove necessary for all but the best climbers, 5' of webbing, drybag and shoes with good traction. A wetsuit may be required during the colder months.

**SPECIAL CONSIDERATIONS:** Water is available along the Bright Angel Trail at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, and Indian Garden. Water may also be found at the Colorado River, Bright Angel Creek, and Phantom Creek. Water at the rest houses is not available during the winter. A permit is required from the National Park Service.



**ACA Rating:** 2B VI

**Distance:** 27 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 7,200 – 2,400 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Grand Canyon, Phantom Ranch, Bright Angel Point 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the South Kaibab Trailhead just south of Yaki Point on Yaki Point Road, but access to the trailhead is available by shuttle bus only. Free shuttle buses run regularly throughout the day. To avoid delay, try to catch the early morning Hiker's Express Shuttle, which travels directly to the South Kaibab Trailhead from the Backcountry Information Center, Bright Angel Lodge shuttle bus stop, and Grand Canyon Visitor Center.

### TRIP DESCRIPTION

From the South Kaibab Trailhead, pick up the dusty, well maintained South Kaibab Trail as it travels steeply down through the upper layers of the canyon. After traveling 1.5 miles and dropping 1,200 feet, you'll reach Cedar Ridge, which has a composting toilet. Another 2.9 miles and 2,000 feet of elevation loss will bring you to another composting toilet and junction with the Tonto Trail.

About 0.25 miles past the junction, you'll reach the "Tipoff", where an emergency phone is located on the right (east) side of the trail. The track then makes its final steep descent to the bottom of the canyon, through the Tapeats Sandstone and Vishnu Schist. Head right at the junction with the River Trail to go through a tunnel and across the black bridge. A short walk downriver will bring you to Bright Angel Creek.



*The route above Phantom Creek*



*Phantom Creek*

Turn right and follow the path along the creek past the first metal bridge towards Phantom Ranch. Cross the creek at the second steel bridge, this terminates at campsite #1. Walk through the small campsite to pick up an unmarked trail that climbs steeply straight up the loose, rocky slope behind the campsite. After reaching a minor ridge, the path becomes less steep and better defined as it climbs up towards a prominent notch in the cliffs above. As the route reaches the notch, you'll have to climb over a series of large boulders (dubbed Piano Alley) to gain the level expanse of Utah Flats where the path fades.

Looking towards the northwest, you'll see the sheer cliff of the Cheops Pyramid. Your route leads northward across the flats to the right of these cliffs. As you hike, you should intersect a decent hiker-made trail that travels through the many hedgehog cacti to wind along the slope high above Phantom Creek. When you reach GPS Point - UTM: 12S 399004 mE, 3998857 mN, WGS84 Datum, a path branches to the right to descend a steep, rocky slope. Turn right on this trail, which drops down to Phantom Creek at a very nice campsite beneath some cottonwood trees.

A short distance below the campsite, the creek pours over a sheer 20-foot waterfall. Walk the bench to the right of the fall to a low cliff that may be descended using a rope as a hand-line. A knotted rope is often fixed at this point, but, if none is present, you'll have to use your own. Once in the canyon, simply head downstream. Don't bother trying to keep your feet dry, you'll be walking in water much of the time.

After passing through a short set of narrows, the canyon becomes very wide and rather choked with willows. The next hour or two of hiking consists of rather a dull slog on one side of the creek or the other, or right in the creek itself. Fortunately, the current has kept the rocks in the streambed largely free of algae and traction is decent. About two-thirds of the way to Phantom Ranch, the walls narrow to form a pleasant section that twists and turns between dark, towering, V-shaped schist walls. A short distance before arriving at the junction with Bright Angel Creek, you'll reach a breakdown pile that has created a series of small waterfalls.

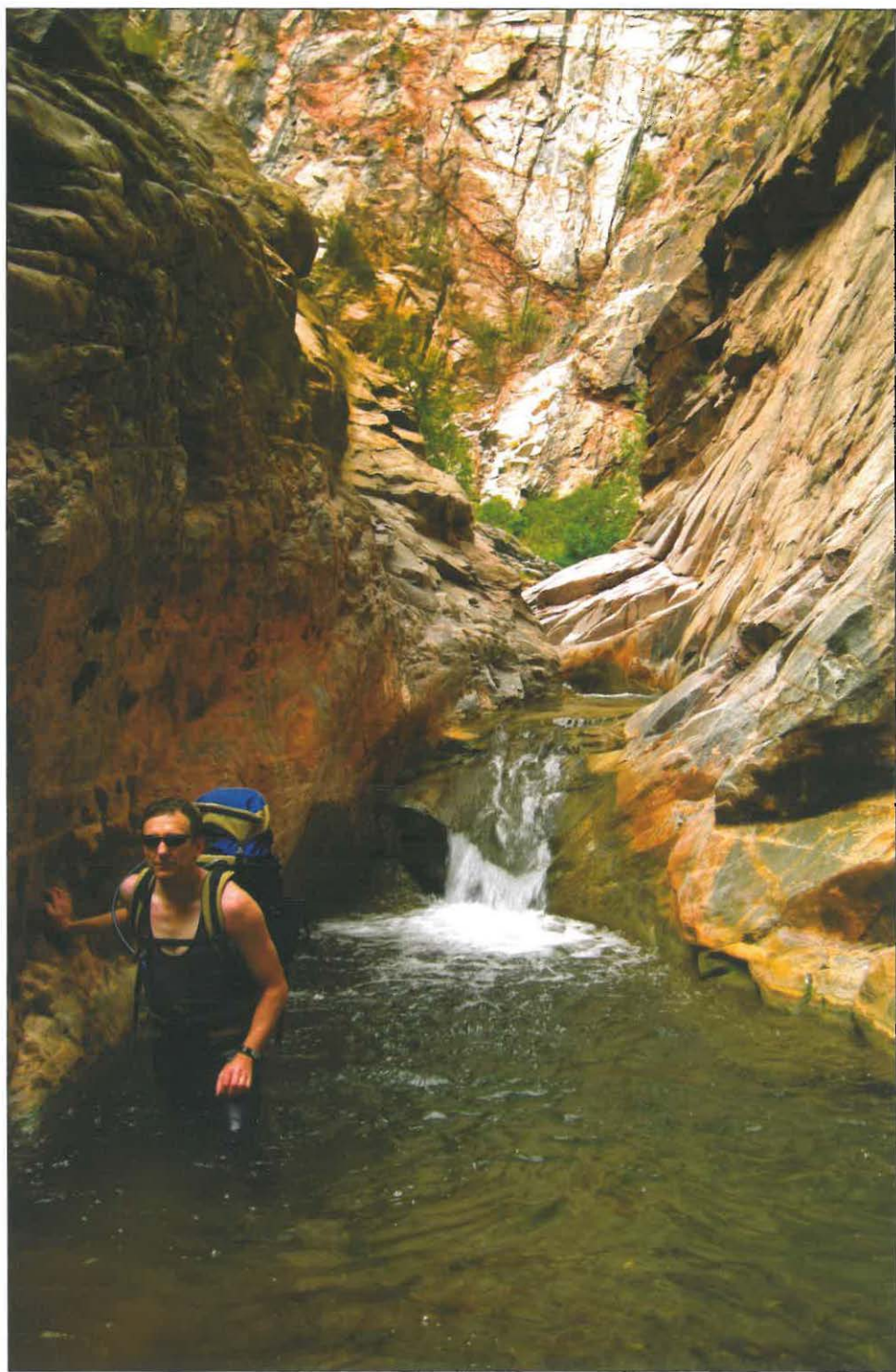
Once at Bright Angel Creek, turn right onto the North Kaibab Trail and follow it down to the Colorado River. Turn right onto the Bright Angel Trail as it travels along the bank a short distance before crossing the river on the silver bridge. The path continues downriver another mile to reach the River Resthouse at Garden Creek. It then bends left and follows the creek at a gentle grade until it crosses Pipe Creek.

The trail ascends steeply out of Pipe Creek and begins climbing beside Garden Creek to eventually arrive at Indian Garden two miles later. Refill water from a fountain located beside the trail before resuming the relentless ascent on the Bright Angel Trail the remaining 4.9 miles to the rim at Bright Angel Lodge.

#### *AUTHOR'S RATING ★★*

Phantom Canyon provides a good introduction to both backcountry hiking in the Grand Canyon and canyoneering. While physically challenging, the route itself is fairly straight forward and features some rugged scenery and a chance to escape the corridor trail crowds.

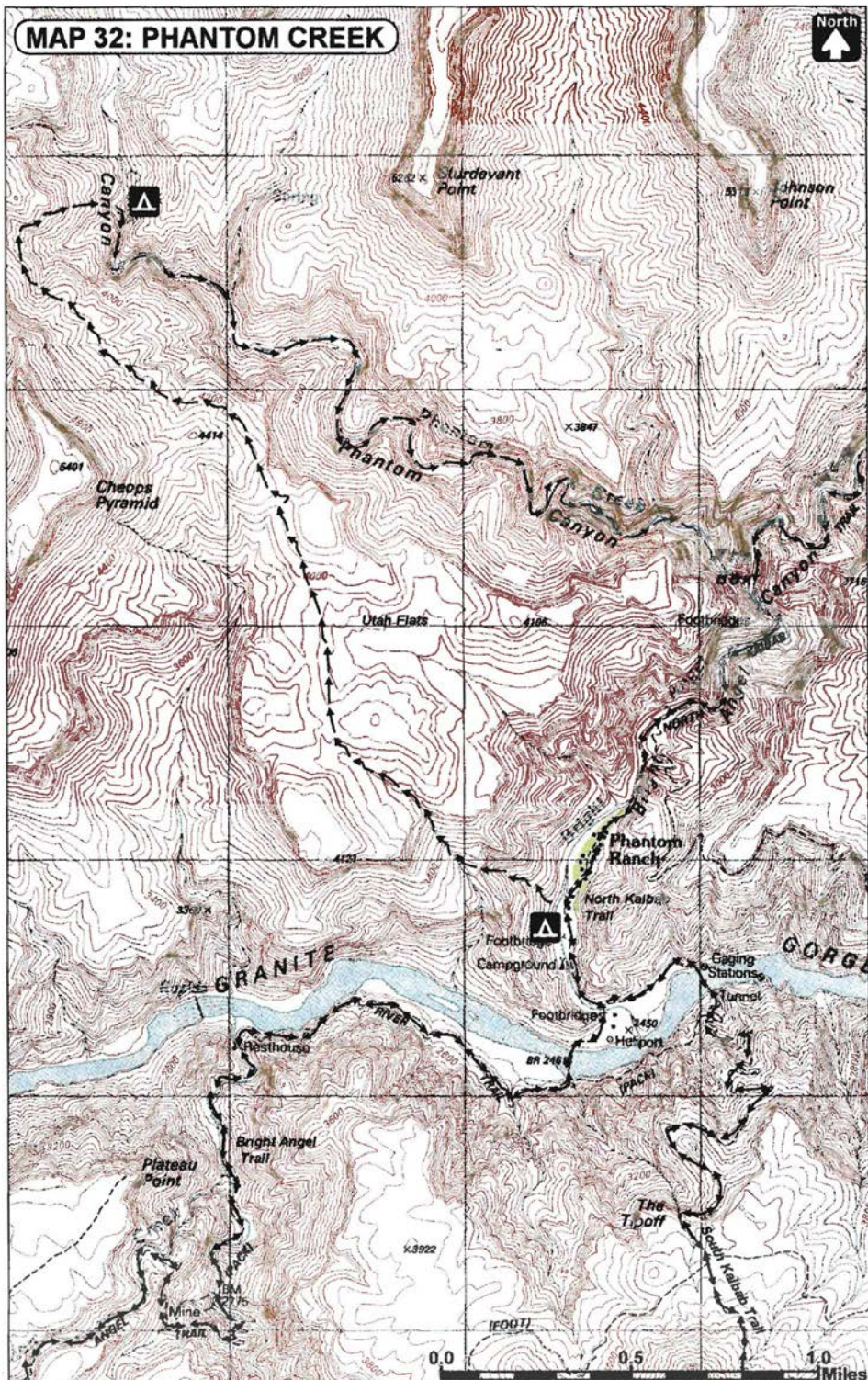




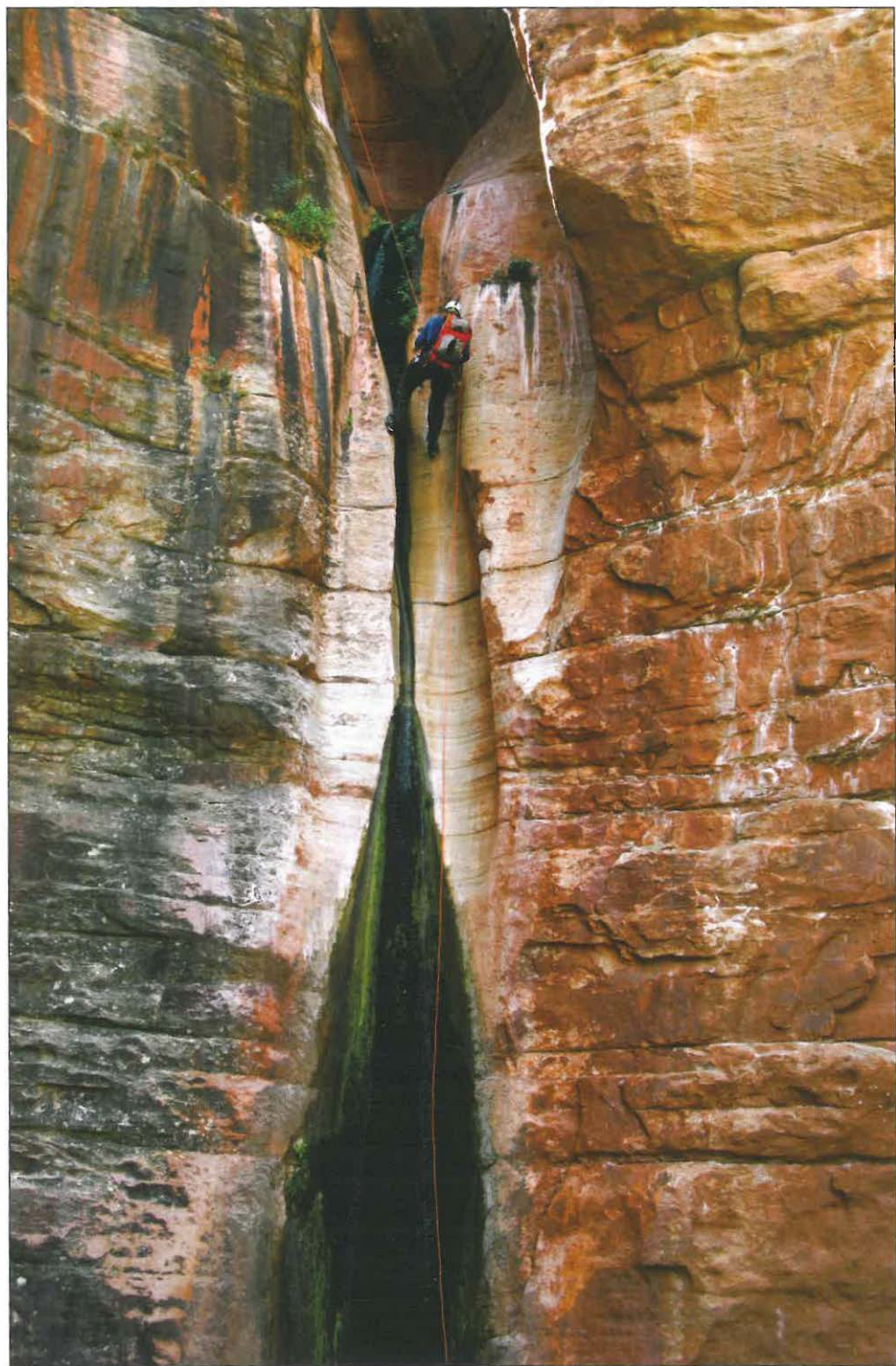
*Wading through the narrows of Phantom Creek*



**MAP 32: PHANTOM CREEK**







*Chris Forsyth on the first rappel in the Eastern Fork of Pipe Creek*



## 33: Pipe Creek

**OVERVIEW:** A long loop hike using the South Kaibab, Tonto and Bright Angel Trails with a technical descent of Pipe Creek Canyon along the way.

**LOCATION:** Grand Canyon National Park. South Rim. Use area: CIG

**REQUIRED GEAR:** Harness, descender, helmet, carabiners, drybag, shoes with good traction, and the following gear: **Western Fork:** 2x200' ropes, 40' webbing, and 2 rap rings. **Eastern Fork:** 2x150' ropes, 60' webbing, and 4 rap rings.

**SPECIAL CONSIDERATIONS:** Water is available along the Bright Angel Trail at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, and Indian Garden. Water may also be found at the Colorado River, and in Pipe Creek Canyon. Water at the rest houses is not available during the winter. A permit is required from the National Park Service if completing this hike as an overnight trip.



**ACA Rating:** 3B IV-V

**Distance:** 14.8 miles

**Physical Difficulty:** Strenuous

**Elevation:** 7,200 – 2,790 ft.

**Time Needed:** 1 – 2 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Grand Canyon, Phantom Ranch 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the South Kaibab Trailhead just south of Yaki Point on Yaki Point Road, but access to the trailhead is available by shuttle bus only. Free shuttle buses run regularly throughout the day. To avoid delay, try to catch the early morning Hiker's Express Shuttle, which travels directly to the South Kaibab Trailhead from the Backcountry Information Center, Bright Angel Lodge shuttle bus stop, and Grand Canyon Visitor Center.

### TRIP DESCRIPTION

From the South Kaibab Trailhead, pick up the dusty, well maintained South Kaibab Trail as it heads steeply down through the upper layers of the canyon. After traveling 1.5 miles and dropping 1,200 feet, you'll reach Cedar Ridge, which has a composting toilet. Another 2.9 miles and 2,000 feet of elevation loss will bring you to another composting toilet and junction with the Tonto Trail. Turn left (west) and follow the Tonto Trail 1.5 miles as it winds its way around Skeleton Point eventually crossing Burro Spring at a stand of cattails, to soon thereafter arrive at the veritable oasis of Pipe Creek.

**EASTERN FORK:** Depart the trail at UTM: 12S 400700 mE, 3992560 mN WGS84 Datum and hike down Pipe Creek. After a short walk, you'll push through some cattail to arrive at the first rappel, which is 120 feet in length along a mossy waterfall (20 feet into a waist deep pool, then 100 feet to the bottom) using a cluster of small trees as an anchor. Use care when rappelling, the moss grows atop a crumbly substrate that can be easily dislodged by the rope or your feet.

After pulling the rope, continue the hike downcanyon. After hiking about 0.5 miles the walls of Vishnu Schist and Zoroaster Granite narrow and soon thereafter you'll arrive at the next rappel, which is 45 feet long down a narrow falls from a rock pile at the top of the drop. Rappel #3 lies just below, and is 15 feet from a pinch point at the top. A short walk will bring you to the confluence of the Eastern and Western Forks of the canyon.

**WESTERN FORK:** Continue west on the Tonto Trail around the Eastern Fork of the canyon to soon arrive at the Western Fork at UTM: 12S 399961 mE, 3992983 mN WGS84 Datum. A short walk down this drainage will bring you to a large pour-off in the Tapeats. The drop is 200 feet in length and can be negotiated by rigging an extended anchor from one of the large boulders at the top. I'd suggest hanging your pack for the rappel since it is largely free-hanging. There are a few minor downclimbs before arriving at the junction of the canyon's forks, but no significant obstacles.

**PIPE CREEK CONFLUENCE:** Continue downcanyon below the confluence to arrive at the final drop, which is formed by a huge chockstone. Climb down the first obstacle on the right to locate a pinch point underneath the topmost chockstone. If webbing is in place at this drop, be sure to inspect it fully for rodent damage (both times I've been here the webbing has exhibited signs of having been gnawed). The pinch point may be used as an anchor for a 50-foot rappel to the base of one of the largest boulders you may ever see (also note the creek squirts right out of a travertine covered wall at the boulders base).

Pull the rope and remove your harness, then hike downcanyon keeping your eyes open for large cairns on either side of the canyon that mark the crossing of the Bright Angel Trail. Turn left (south) on the Bright Angel Trail as it ascends steeply out of Pipe Creek, then begins climbing beside Garden Creek to eventually reach Indian Garden two miles later. Refill water from a fountain located beside the trail before resuming the relentless ascent on the Bright Angel Trail the remaining 4.9 miles to the rim at Bright Angel Lodge.

## AUTHOR'S RATING

Eastern Fork: ★★

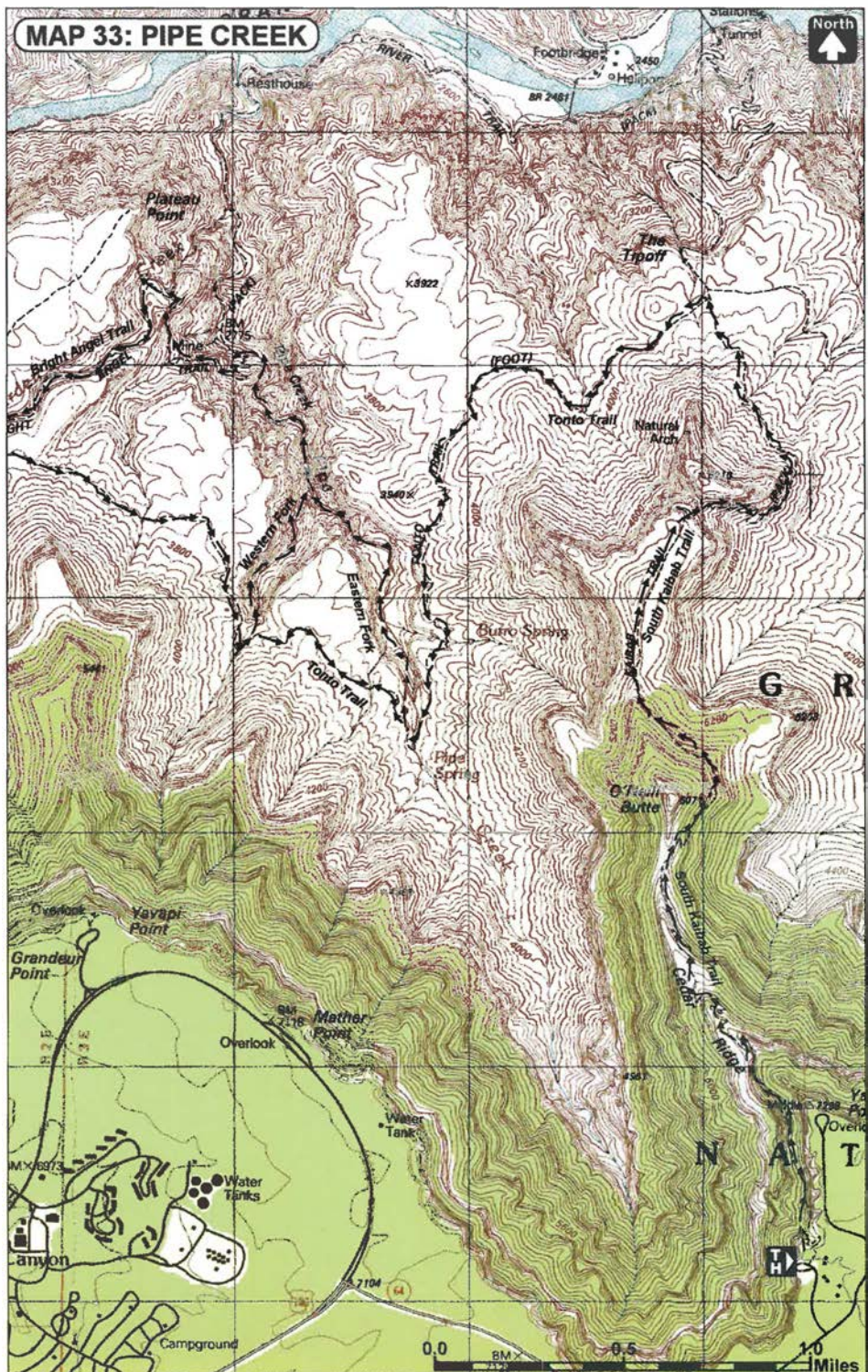
Western Fork: ★

A technical descent of Pipe Creek takes you through a dark primordial slot cut through 1.8 billion year old rock. While hikers have been below the Tonto Platform via several routes into Pipe Creek and have hiked up to the big chockstone from below, Rich Rudow and Dale Diulus are the first canyoneers (that I'm aware of) to have descended the route from the top as a technical canyon.

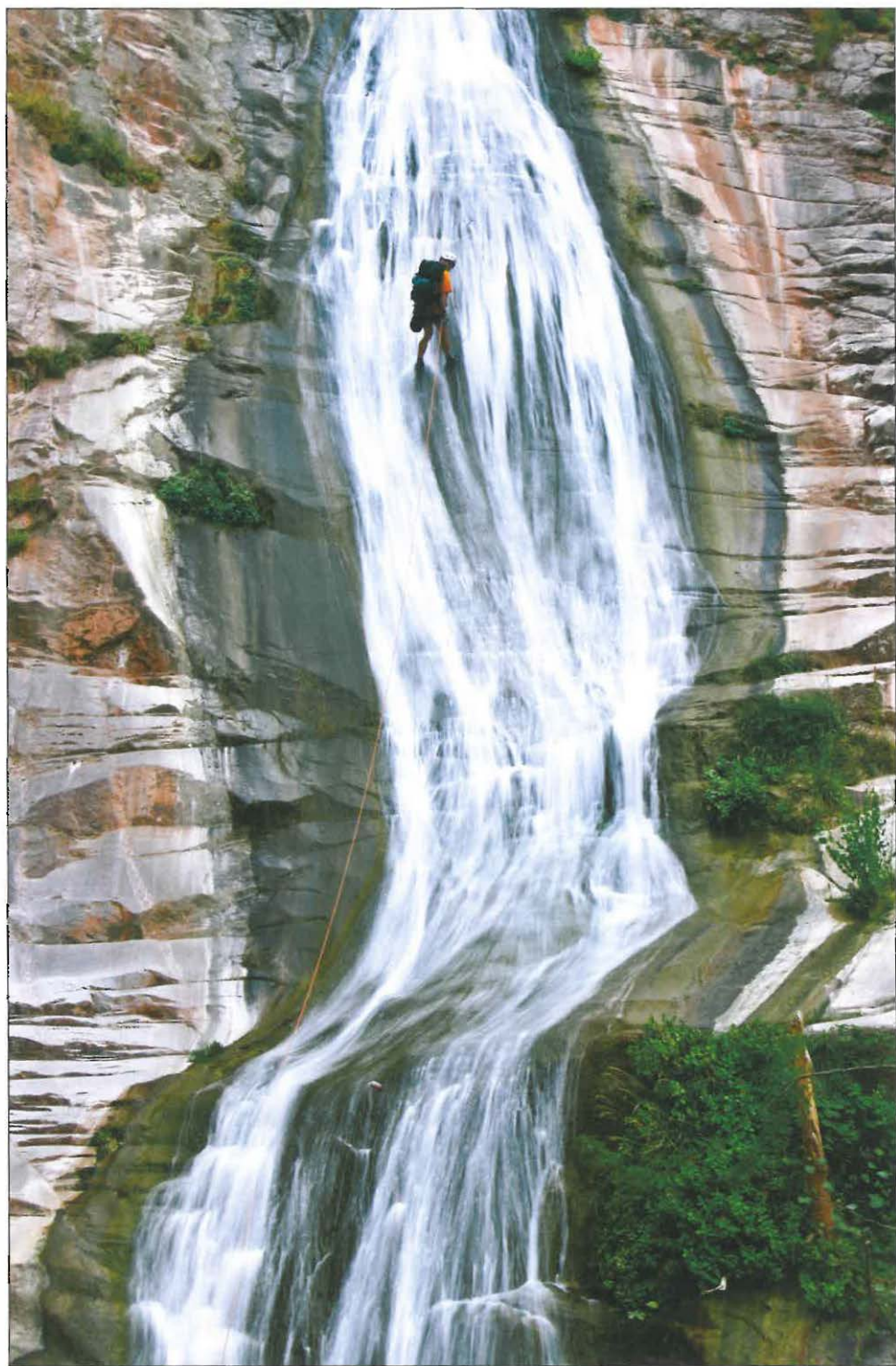


*Albert Putzig negotiates the entry rappel in the Western Fork of Pipe Creek*









*The lower half of the big waterfall in Garden Creek*

## 34: Garden Creek

**OVERVIEW:** A technical canyon that is hidden in plain sight, right next to one of the most popular routes in the Grand Canyon. Backpackers and hikers uninterested in the technical descent can visit the scenic lower falls via a short scramble up from where the creek intersects the Bright Angel Trail.

**LOCATION:** Grand Canyon National Park. South Rim. Use area: CIG

**REQUIRED GEAR:** 3x200' ropes, 30' webbing, 4–5 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit may be required during cooler weather.

**SPECIAL CONSIDERATIONS:** This canyon may be dangerous during spring snowmelt or after heavy thunderstorms when flows are high. Be aware that the rock in this canyon is extremely smooth and slick. Water is available at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, Indian Garden and Garden Creek. Water at the rest houses is not available during the winter. This hike requires a permit from the National Park Service if done as an overnight.



**ACA Rating:** 4C IV–V

**Distance:** 13.5 miles

**Physical Difficulty:** Strenuous

**Elevation:** 6,860 – 2,630 ft.

**Time Needed:** 1 – 2 days

**Best Time of Year:** Summer

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Grand Canyon, Phantom Ranch 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the Bright Angel Trailhead, which is located in Grand Canyon Village near the Bright Angel Lodge.

### TRIP DESCRIPTION

From the Bright Angel Trailhead, pick up the dusty, well maintained Bright Angel Trail as it heads steeply down through the upper layers of the canyon. Water and toilets are available at the Mile-and-a-half and Three-Mile Resthouses, which you will pass at the 1.5 and 3-mile points respectively (*Note: water is shut off in the winter so the pipes do not freeze*). You'll reach Indian Garden at the 4.6-mile point after losing just over 3,000 feet of elevation. If spending the night at the campground, drop the overnight gear to lighten your load. Be sure to store any food in the ammo cans and hang your remaining gear. The campground is rife with animals behaving badly (I'm talking about the humans of course, and they've had a bad influence on the wildlife).

When ready, continue to descend the Bright Angel Trail past the left and right branching junctions with the Tonto Trail West and East respectively. The path parallels Garden Creek as it descends through the Tapeats layer into the Vishnu Schist. Depart the Bright Angel Trail to enter the canyon where the trail makes a bend to the right and the

creek makes a sharp left turn to enter a narrow gorge. Prior to entering the canyon, be sure to evaluate the water levels to make sure the canyon is safe to descend.

A short distance into the canyon, you'll complete a short downclimb, followed by a 12-foot nuisance rappel from a knot-chock in a crack on canyon left. Downclimb another short falls to arrive at rappel #2, a 120-footer from a boulder and pinch point on the right. This will bring you to the top of a long, sloping waterfall, the lower part of which may be seen from Plateau Point. The falls is 400 feet in length and may be rappelled using a sturdy tree at the top as an anchor. There is a single bolt and hanger at a small shelf (fits two people) just to the right of the watercourse at the 200-foot mark that may be used as an intermediate station so that the drop may be completed as two 200-foot rappels. Alternately, it is possible to complete the rappel in a single shot with a 350-foot rope by downclimbing the lower 50 feet of the drop on a steep, slickrock slope just to the left of the watercourse.

Once down, pull your rope and continue downcanyon a short distance to the final rappel, which is 150 feet in length down a beautiful cascade using a tree in the middle of the stream as an anchor. The remainder of the canyon may be downclimbed, though less experienced climbers may prefer a belay in a few sections. Use care, the rock is polished smooth and is quite slick.

Pick up the Bright Angel Trail at the mouth of the canyon and turn right to follow it uphill at a gentle grade beside Pipe Creek. The path departs the creekbed on the right to ascend at a much steeper grade along a series of switchbacks known as the Devil's Corkscrew. The trail continues to ascend to the west, then north to eventually arrive at the head of Garden Creek Canyon where you had left the trail earlier in the day. Retrace your steps to Indian Garden, then the remaining distance to the rim.

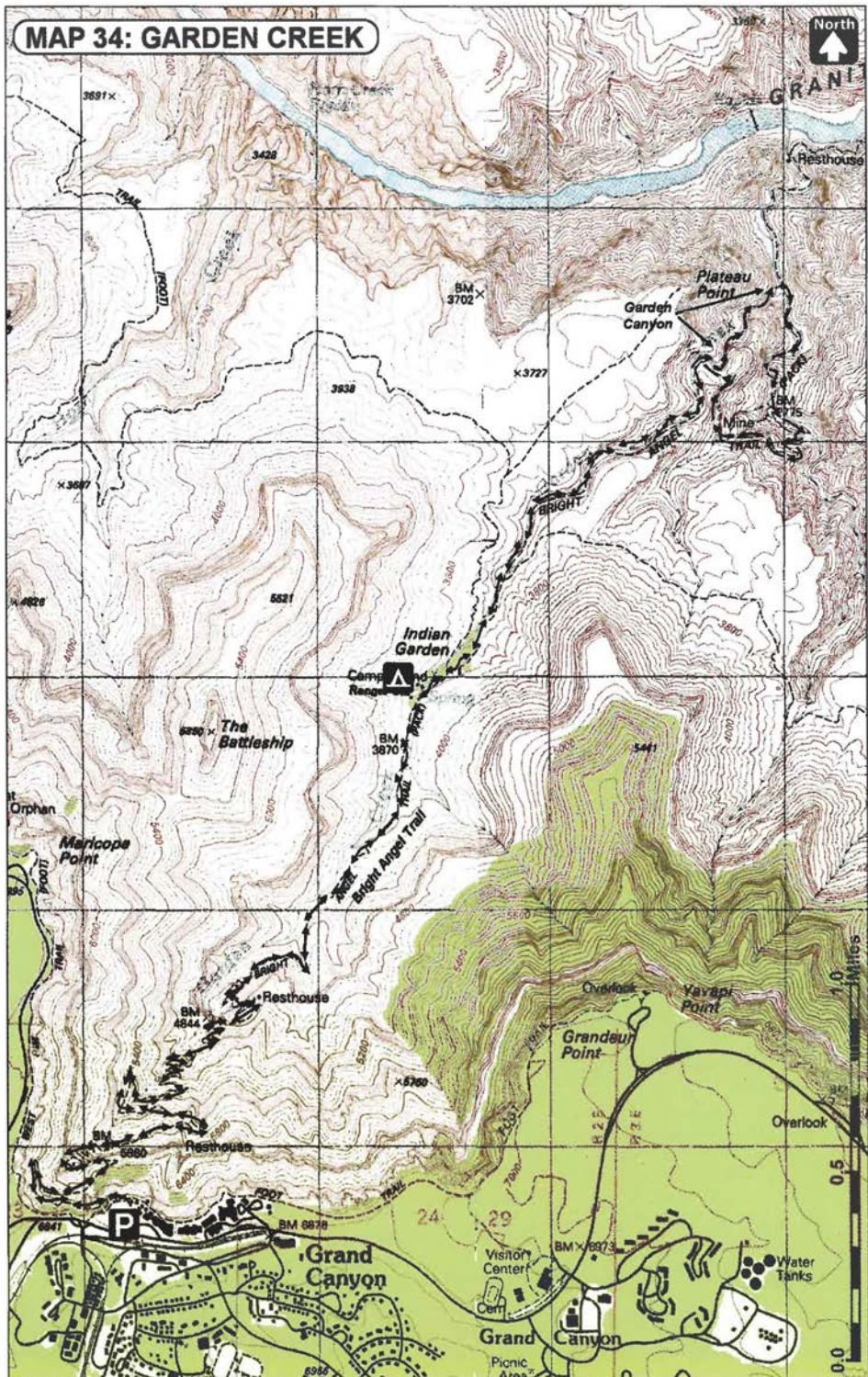
#### *AUTHOR'S RATING* ★★★★★

Garden Creek Canyon is a hidden gem located in close proximity to the most popular trail in GCNP. It's surprising that more people haven't discovered it.

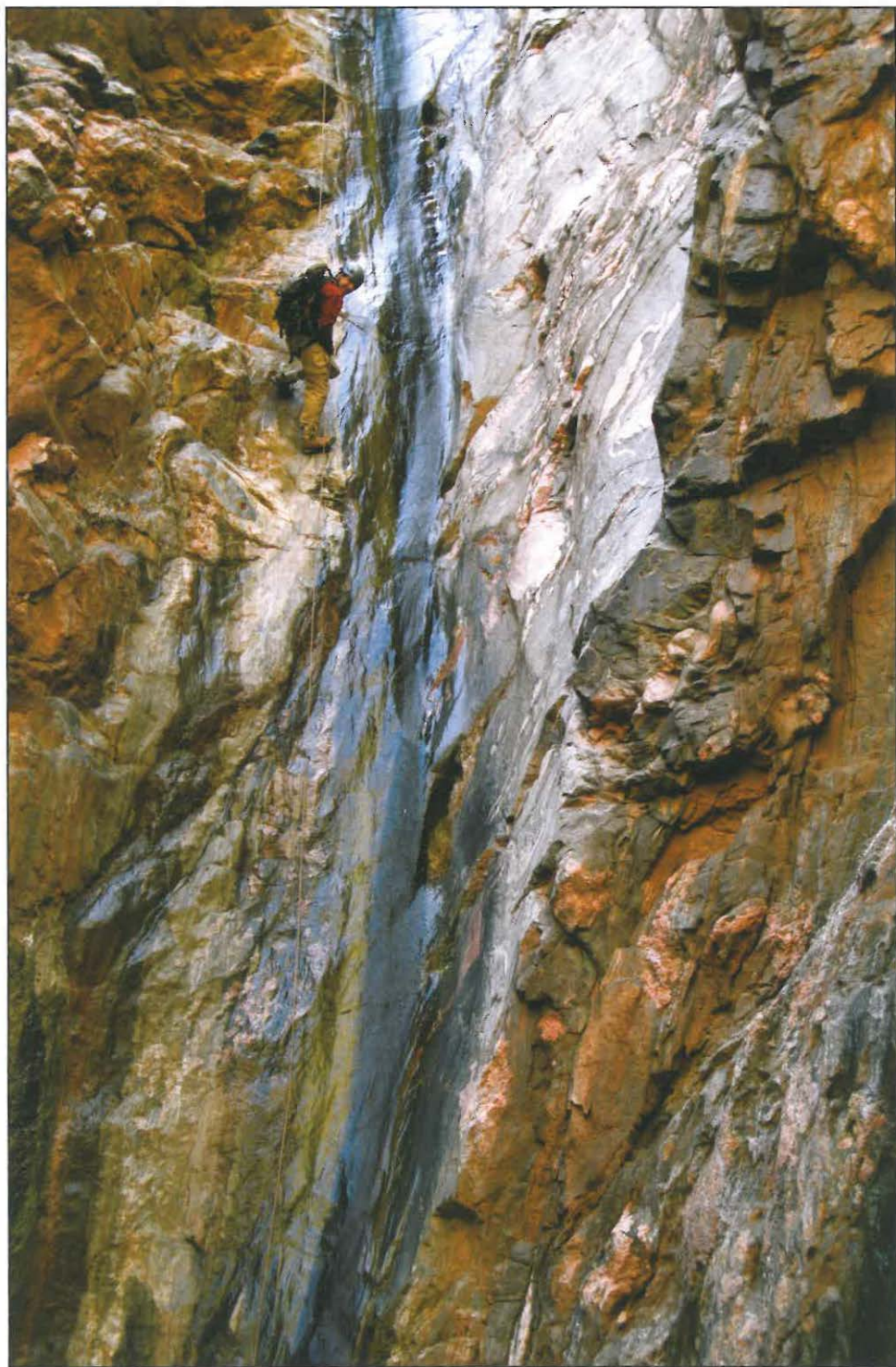


*The final rappel in Garden Creek*









*Rappelling in Horn Creek*

## 35: Horn Creek

**OVERVIEW:** A technical canyoneering route through the Tapeats Sandstone and Vishnu Schist layers to the Colorado River by either fixing ropes and ascending them on the return, or carrying a packraft and floating down the Colorado to the large beach at Monument Creek (portaging the Salt Creek Rapid en route) and exiting via the Hermit Trail (see Hike 38). Those planning to raft downriver should be aware that the Horn Rapid is not packraft friendly. The trip is described from the Bright Angel Trailhead.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: CIG, BL4, BL8, BL7, BM7

**REQUIRED GEAR:** 1x150' and 1x100' rope, 30' webbing, 2 rap rings, harness, descender, helmet, carabiners, and shoes with good traction. Ascending gear is needed to complete this canyon as a down-and-back trip. A packraft, paddle and personal floatation device and wetsuit are required to float downriver to exit at Monument Creek.

**SPECIAL CONSIDERATIONS:** Water is available at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, Indian Garden and the Colorado River. Water at the rest houses is not available during the winter. Horn Creek has water about half the time. *Note: Uranium contamination from the Lost Orphan Mine prompted the Park Service to place a sign at Horn Creek warning hikers not to drink the water. Comprehensive testing in 2001 revealed uranium levels in water in Horn Creek ranged from 8.6 µg/l to 29 µg/l. The EPA has set the safe drinking water standard for uranium at 30 µg/l. The sign has since been removed.* Good rope-ascending skills are required to complete this canyon as a down-and-back trip. This hike requires a permit from the National Park Service.



**ACA Rating:** 3A VI

**Distance:** 17.2 miles

**Physical Difficulty:** Strenuous

**Elevation:** 6,860 – 2,400 ft.

**Time Needed:** 2 – 3 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Grand Canyon 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the Bright Angel Trailhead, which is located in Grand Canyon Village near the Bright Angel Lodge.

### TRIP DESCRIPTION

From the Bright Angel Trailhead, pick up the dusty, well maintained Bright Angel Trail as it heads steeply down through the upper layers of the canyon. Water and toilets are available at the Mile-and-a-half and Three-Mile Resthouses, which you will pass at the 1.5 and 3-mile points respectively (*Note: water is shut off in the winter so the pipes do not freeze*). You'll reach Indian Garden at the 4.6-mile point after losing just over 3,000 feet of elevation. Just past the water fountain, benches and kiosk, look for the signs pointing the way left (west) for the Tonto Trail.



Turn left and follow the Tonto Trail across Garden Creek. After 0.7 miles, look for the wooden sign marking the Tonto Trail as it branches left from the main mule route (which leads to Plateau Point). The Tonto becomes more trail-like and less of a highway as it travels west around "The Battleship" and begins winding its way up into Horn Creek, entering the eastern arm 2.5 miles from Indian Garden. Camping is available at the main arm of Horn Creek a short distance west.

Leave the trail where it crosses the eastern arm of Horn and begin hiking down the drainage. A short distance through the Tapeats, you'll reach a large chockstone which requires a moderately difficult downclimb on the right. You'll want to pass packs and possibly use a belay for the less experienced members of your group. A short walk will bring you to a junction with the western fork of the canyon (which might be a simple walk-down), then shortly thereafter another downclimb on the right through a hole formed by two large boulders.

Continue downcanyon entering the Vishnu Schist to reach a large dryfall, which may be bypassed by climbing up and around on the left, then down along a steep, rocky slope a short distance later. Some walking will bring you to the first rappel, which is 130 feet in length from a constructed rock pile down a water polished chute. *Note: highly skilled and risk tolerant climbers may be able to negotiate this obstacle by downclimbing along a series of ledges on the right. I was able to upclimb this route, but found one section too polished to descend.*

The canyon twists and turns and you'll need to complete a few additional downclimbs to reach the second rappel, which is 60 feet in length from a small, but sturdy tree located a short ways back from the drop on the right. Below the rappel are three more chockstone downclimbs to reach the mouth of the Horn Creek, the Colorado River and the Horn Creek Rapid.

Those doing a down-and-back trip may return the way you came, ascending the ropes you fixed in place and retrieving your gear on the way out.

Those exiting at Monument Creek should inflate packrafts, don wetsuits, and formulate their plan. Horn Creek Rapid is one of the more turbulent of the Grand Canyon rapids and should absolutely not be attempted in a packraft. That's the easy part of the plan formulation, the harder part is determining the best way to avoid it given the extra small debris fan at the mouth of Horn and the fact that you can't walk around it.

One option might be to hike and climb the rocks along the south shore upstream until you can go no further, then hope to catch an eddy along the river's edge in your packraft to get as far upriver from the rapid as you can. Next ... paddle (like your life depends on it) to the north side of the river and take out above Horn Rapid and walk around it on the north. The upside of this strategy lies in the fact that you can largely bypass the rapid on the north side of the river, the downside lies in the high penalty points involved should you not make it across before reaching the rapid (I have not attempted this maneuver).

The second option is to walk down along the south side of the river as far as the debris fan will allow. This strategy avoids much of the Horn Creek Rapid, however it requires navigation around one troublesome Vishnu fin, which juts into the river from the left just downriver of the debris fan. The difficulty lies in the fact that the fin creates strong standing waves and a difficult recirculating eddy that can easily flip a packraft. The upside is that if you do flip, relatively calm water awaits below. It will help to paddle hard toward the middle of the river above the eddy to put some distance between yourself and the fin.

Once past the Horn Rapid, the float to Monument Creek is relatively straightforward.

There is one riffle between Trinity Creek and Salt Creek that must be run (no takeout exists on either side of the river), and you'll want to walk around the rapids at both Trinity Creek (portage on the right) and Salt Creek (portage on the left) before arriving at the large debris field of Monument Creek (there's an easy takeout at a sandy beach on the left well above Granite Rapid).

The loop may be completed by hiking up Monument Creek to exit via the Hermit Trail (see the Monument Creek hike description later in this book).

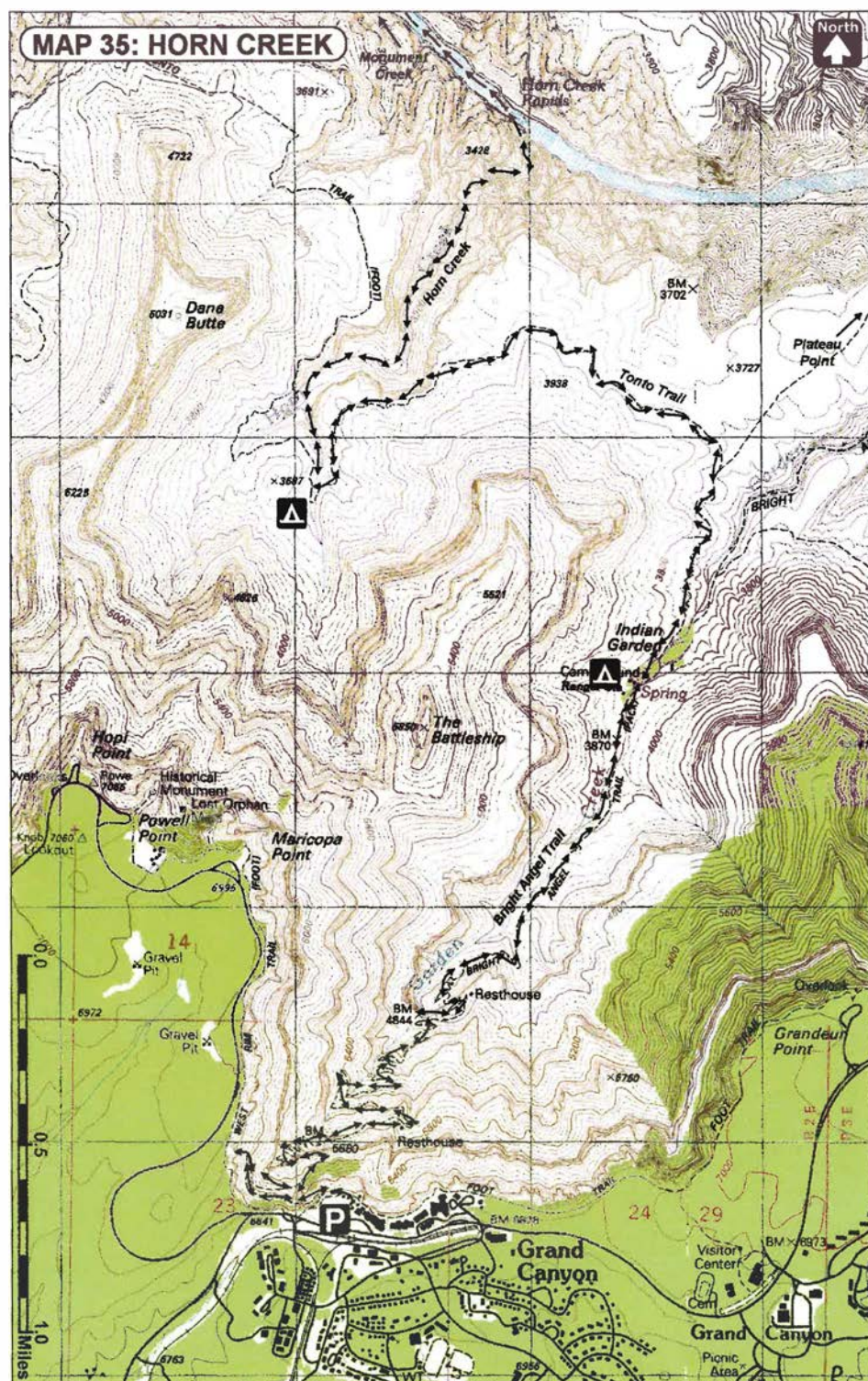
#### ***AUTHOR'S RATING ★★***

Aaron Locander and I packed up a few ropes, some webbing and packrafts to attempt a quick two day sprint to explore Horn and Salt Creeks. Luckily, the two ropes we carried on the Horn Creek descent turned out to be sufficient to get us to the river and back. Unfortunately, the ropes proved to be too short to complete a full descent of Salt Creek. A few weeks later, Rich Rudow, Hank Moon and I descended Horn on a packraft trip to Trinity Creek. Launching our rafts below Horn Rapid on the south side, Hank flipped his raft attempting to get around the Vishnu fin, but was easily able to swim to shore and recover his pack and raft in the eddy below. Though he was in the water a good five minutes, he did not get cold because he was wearing a wetsuit.



*The final rappel in Horn Creek*







## 36: Trinity Creek

**OVERVIEW:** Trinity Creek is a hard to reach technical North Rim canyon with some wonderful, twisting narrows in the Vishnu Schist. The route described involves a descent to the river via Horn Creek, then a raft trip and ascent of Ninetyone Mile Canyon to get into upper Trinity Creek. Exit involves another raft trip, this time to Monument Creek, exiting via the Hermit Trail. Those planning to access Trinity by packraft via Horn Creek should be aware that the Horn Rapid is not packraft friendly.

**LOCATION:** Grand Canyon National Park. North Rim. Use areas: CIG, BL4, AP9, AQ9, BL8, BL7, BM7

**REQUIRED GEAR:** 1x150' rope, 30' webbing, harness, descender, ascending gear, helmet, carabiners, shoes with good traction, drybag, packraft, paddle and personal floatation device. A wetsuit is recommended for the raft trip.

**SPECIAL CONSIDERATIONS:** Water is available at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, Indian Garden, Horn Creek, Trinity Creek (seasonal, mineralized), Monument Creek, Santa Maria Spring (seasonal) and the Colorado River. Water at the rest houses is not available during the winter. Horn Creek has water about half the time (see note on water quality in the previous description). River travel is required in order to complete this trip. This canyon requires good natural anchor skills. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 3A VI	<b>Distance:</b> 24.8 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 6,860 – 2,370 ft.
<b>Time Needed:</b> 3 – 5 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Grand Canyon 7.5	<b>Navigation:</b> Moderate to Difficult

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the Bright Angel Trailhead, which is located in Grand Canyon Village near the Bright Angel Lodge.

### TRIP DESCRIPTION

The first order of business is to simply get to Trinity Creek. Unfortunately, there really is no easy or direct route. Probably the quickest route, and the one described here, involves a technical descent of Horn Creek, which lies just upriver from Trinity. You may then use a packraft to float to Ninetyone Mile Canyon then ascend this drainage to the Tonto Platform above upper Trinity Creek. Another option would be to utilize a route described by George Steck in his book *Hiking Grand Canyon Loops*. His Phantom Creek/Crystal Creek Loop crosses the Trinity drainage at about the same location as the route described here (I have not attempted the route outlined by Steck).

Beginning at the Bright Angel Trailhead, follow the Horn Creek route to the river as described in the previous trip. You'll then need to utilize a packraft to float just about one mile to the mouth of Ninetyone Mile Creek (the first major drainage you'll come to on river right). See the previous trip description for packrafting tips to negotiate the Horn Creek Rapid.

Hike up the rocky drainage of Ninetyone Mile Creek. Soon, you'll arrive at the first of three impassable dryfalls. Each of these dryfalls may be bypassed by climbing around on the left (facing upcanyon). At the first dryfall, simply climb a rocky fin up and around the obstacle. The second falls involves a steep climb, followed by a rather tricky traverse along a narrow ledge high above the canyon floor before reaching a spot that will allow negotiation back down to the drainage bottom. At the third dryfall, climb the steep, loose slope on the left to a small saddle above the canyon. Here you will find a few small cairns leading upcanyon along the slope a short distance, then back down to the canyon bottom.

Once above these obstacles, it's a straightforward hike up Ninetyone Mile Creek. Stay to the left at the two major canyon junctions you come to at UTM: 12S 397595 mE, 3997151 mN and 12S 397727 mE, 3997529 mN WGS84 Datum. Two miles from the river you'll want to leave the drainage to the left (facing upcanyon) at the first easy place to do so (near GPS point - UTM: 12S 396955 mE, 3998348 mN WGS84 Datum). Travel due west to the top of a rounded, cactus covered hill on the Tonto Platform where you'll have views to the west of a large tributary arm of Trinity Creek. A minor drainage located at UTM: 12S 396590 mE, 3998448 mN WGS84 Datum will allow you to descend through the Tapeats layer into this tributary drainage.

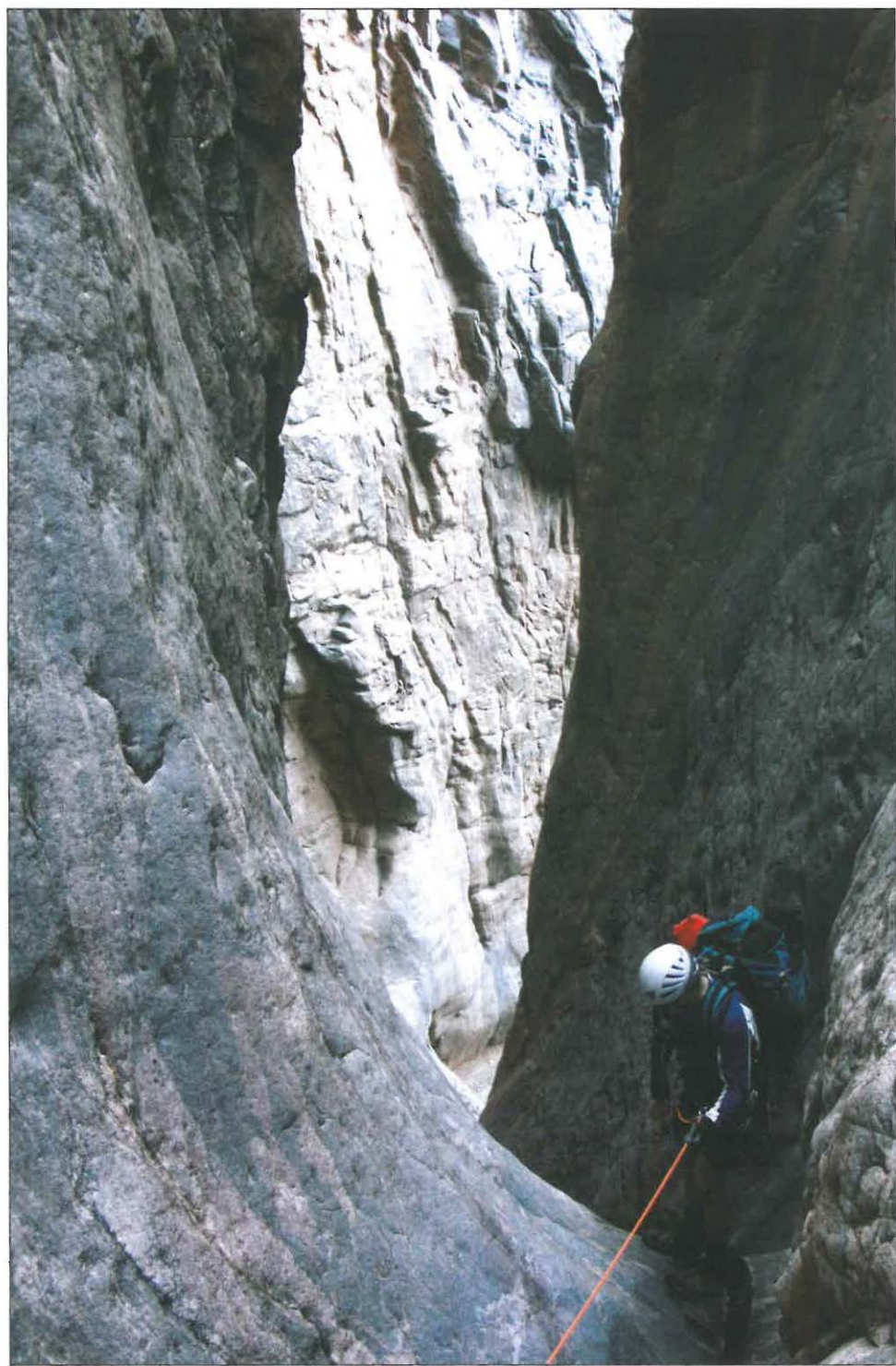
Head down the dry, rocky wash to soon enter the main fork of Trinity Creek. The canyon deepens as it enters the Vishnu Schist, which eventually appears underfoot creating some shallow pools. The first obstacle is a chockstone, which forms a drop-off of about 10 feet. It's possible to downclimb on the right side of the chockstone with the use of a hand-line (preferable) or the obstacle can be bypassed on the left by climbing up and around, then down on a series of exposed ledges (less preferable). Below, the canyon narrows significantly and negotiates a series of twists and turns to arrive at the first rappel, a 35-footer from a knot-chock in a crack on canyon left into a nice chamber filled with debris from recent rockfall. The second, and final, rappel lies at the other end of this room and is approximately 70 feet in length using a pile of rocks as an anchor.

It's an easy walk the remainder of the way to the Colorado River as the canyon opens up, then narrows once again before reaching the beach and debris fan at its mouth. The next task is to inflate the packrafts and float downriver to the beach at Monument Creek. You'll want to walk around the rapids at Salt Creek (portage on the left) before arriving at the large debris field of Monument Creek (there's an easy takeout at a sandy beach on the left well above Granite Rapid). Plenty of good campsites exist within the tamarisk upriver from the creek. Be sure to secure your food if camping here, hungry and devious mice and ravens abound in the area.

The loop may be completed by hiking up Monument Creek to exit via the Hermit Trail (see Monument Creek hike description later in this book).

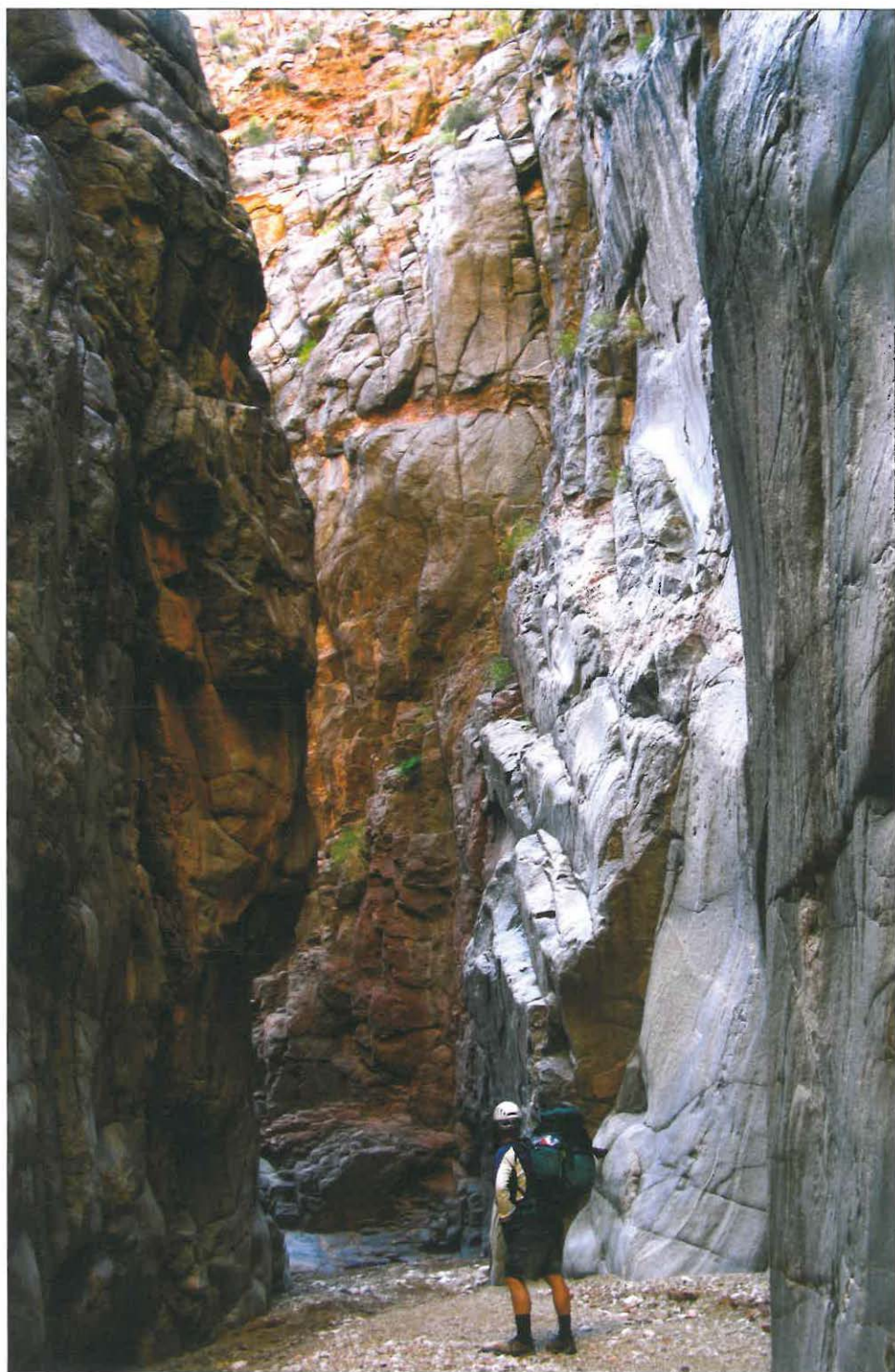
#### **AUTHOR'S RATING ★★ ★**

Rich Rudow, Hank Moon and I completed this hike as a three day trip, spending the first night in Trinity Creek and the second at Granite Rapid. Though some, including Harvey Butchart, have hiked from above to the top of the first rappel, and many river runners hike up from below to the bottom of the second, this may have been a first complete descent of the canyon.



*The second and final rappel in Trinity Creek*





*Trinity Creek narrows*









*The 90-foot rappel in Salt Creek, the big drop can be seen just below*



## 37: Salt Creek

**OVERVIEW:** A technical canyoneering route through the Tapeats Sandstone and Vishnu Schist layers to the Colorado River using a packraft to float down the Colorado to the large beach at Monument Creek. The trip is described from the Bright Angel Trailhead.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: CIG, BL4, BL5, BL8, BL7, BM7

**REQUIRED GEAR:** 2x250' ropes, 30' webbing, 2 rap rings, harness, descender, helmet, carabiners, drybag, shoes with good traction, drybag, packraft, paddle and personal floatation device. A wetsuit is required for the raft trip during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, Indian Garden and the Colorado River. Water at the rest houses is not available during the winter. Horn and Salt creeks have water about half the time. *Note: Uranium contamination from the Lost Orphan Mine prompted the Park Service to place a sign at Horn Creek warning hikers not to drink the water. Comprehensive testing in 2001 revealed uranium levels in water in Horn Creek ranged from 8.6 µg/l to 29 µg/l and from 29 to 31 µg/l in Salt Creek. The EPA has set the safe drinking water standard for uranium at 30 µg/l. The sign has since been removed.* River travel is required in order to complete this trip. A permit is required from the National Park Service if completing this hike as an overnight trip.



<b>ACA Rating:</b> 3A VI	<b>Distance:</b> 21.2 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 6,860 – 2,420 ft.
<b>Time Needed:</b> 2 – 3 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Grand Canyon 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the Bright Angel Trailhead, which is located in Grand Canyon Village near the Bright Angel Lodge.

### TRIP DESCRIPTION

From the Bright Angel Trailhead, pick up the dusty, well maintained Bright Angel Trail as it heads steeply down through the upper layers of the canyon. Water and toilets are available at the Mile-and-a-half and Three-Mile Resthouses, which you will pass at the 1.5 and 3-mile points respectively (*Note: water is shut off in the winter so the pipes do not freeze*). You'll reach Indian Garden at the 4.6-mile point after losing just over 3,000 feet of elevation. Just past the water fountain, benches and kiosk, look for the signs pointing the way left (west) for the Tonto Trail.

Turn left and follow the Tonto Trail across Garden Creek. After 0.7 miles look for the wooden sign marking the Tonto Trail as it branches left from the main mule route (which leads to Plateau Point). The Tonto becomes more trail-like as it travels west around "The

Battleship” and begins winding its way up into, and around the two arms of Horn Creek. Campsites and toilet are present in the western arm of Horn.

Continue west as the trail loops out and around Dana Butte and slowly begins working its way back into the sheer alcove dubbed “The Inferno”. Ignore the first set of drainages off to the right and continue walking to a point where the trail eventually crosses the drainage of Salt Creek 4.8 miles after departing Horn. Camping and a composting toilet are available off of a spur trail a short distance west of the creek.

Leave the trail and begin hiking down Salt Creek to soon pass through a very nice stretch of Tapeats narrows. If you’re paying attention you may see a wire that represents the old Hermit-to-Indian Garden telephone line dangling into the canyon on the left. Continue down canyon into the Vishnu Schist, which descends a series of small cascades to reach a very large drop of approximately 340 feet. The drop is broken into two sections separated by a flat alcove at the 90-foot mark.

A rock pile may be used as an anchor for the first 90-foot rappel, followed by a 250-foot rappel from a single bolt and hanger on the left. There are a few downclimbs between the bottom of the second rappel and the river, but nothing that should present much in the way of trouble.

Once at the mouth of Salt Creek, walk to the downriver side of the debris fan and inflate your packraft. It’s a straightforward  $\frac{3}{4}$ -mile float from Salt to the large debris field of Monument Creek (there’s an easy takeout at a sandy beach on the left well above Granite Rapid). Plenty of good campsites exist within the tamarisk upriver from the creek. Be sure to secure your food if camping here, hungry mice and ravens abound in the area.

The loop may be completed by hiking up Monument Creek to exit via the Hermit Trail (see Monument Creek hike description later in this book).

#### **AUTHOR’S RATING ★★**

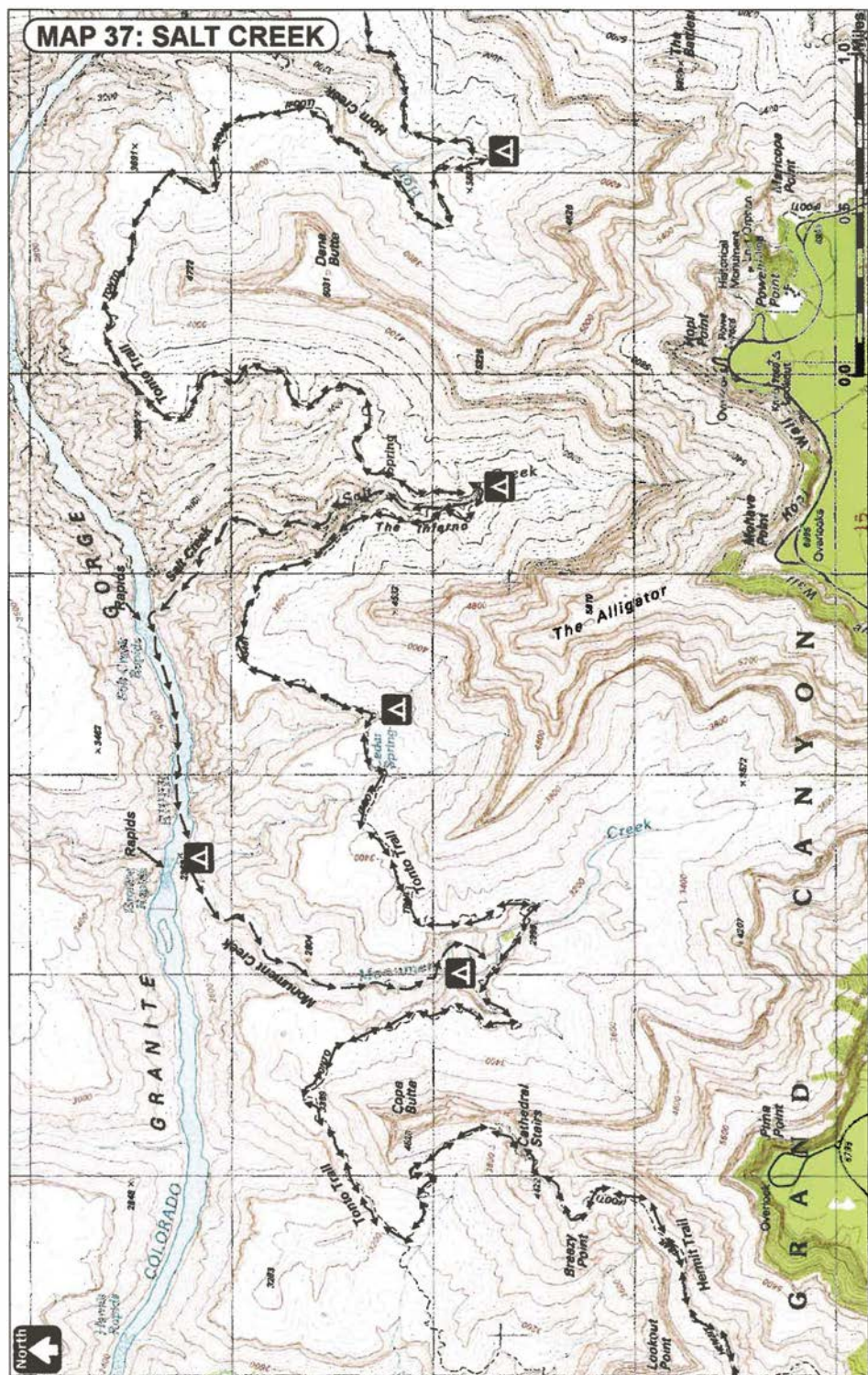
Salt Creek took two trips to finally complete. On the first, Aaron Locander and I descended the canyon carrying a 200-foot and 100-foot rope. Connecting the two ropes together I rappelled halfway down the big drop only to find that the rope didn’t reach the bottom and had to jug back out. A few weeks later, Rich Rudow and I returned, this time armed with enough rope to do a 250-foot rappel. This proved to be just enough to get us to the bottom of the big drop and we were able to complete the canyon.



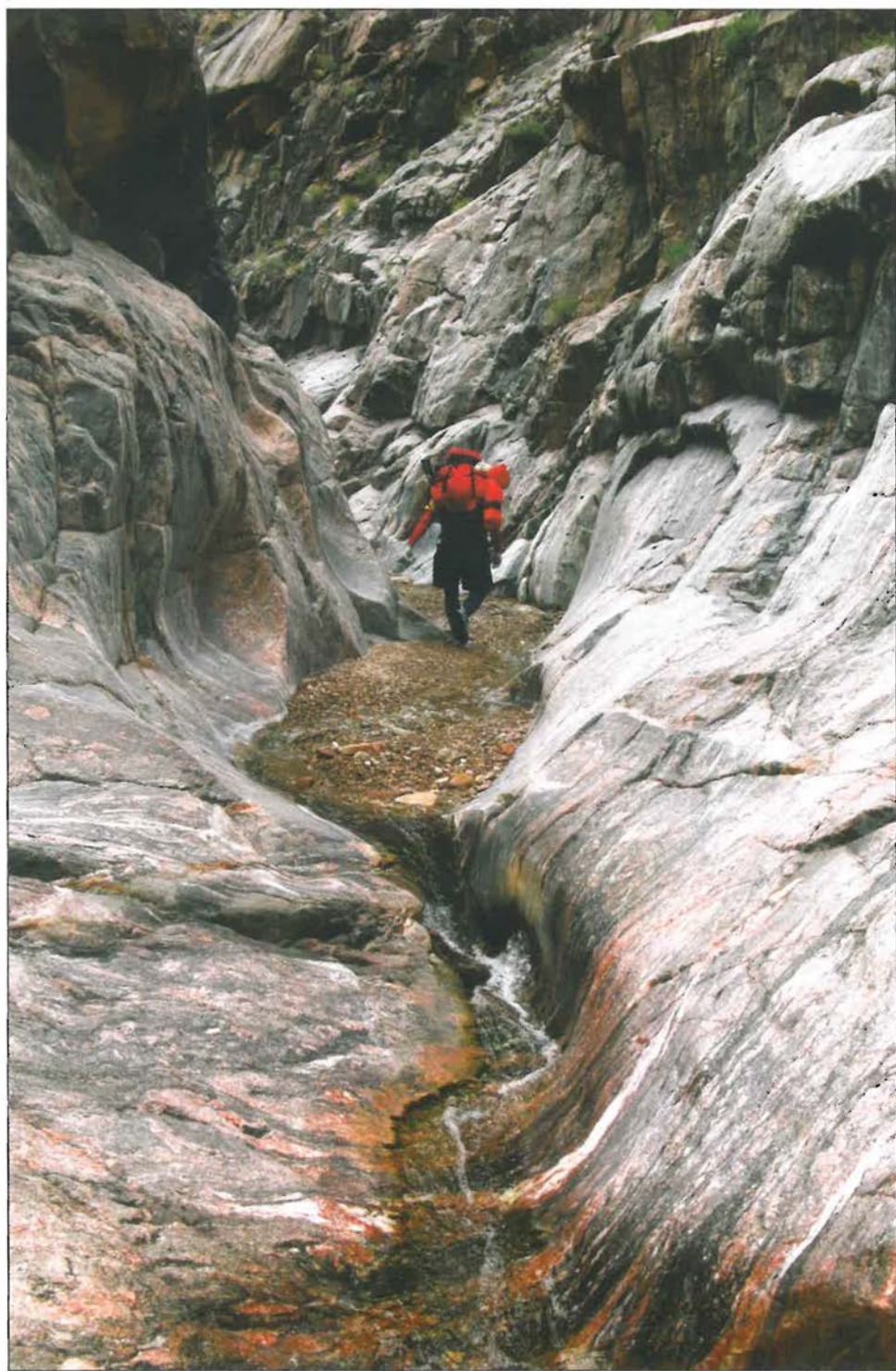
*Salt Creek just below the Tonto Trail*



**MAP 37: SALT CREEK**







*Hank Moon in the narrows of Monument Creek*

## 38: Monument Creek

**OVERVIEW:** A non-technical backpacking trip to a very pleasant stretch of Vishnu narrows featuring a perennial stream. The trip described here involves a loop hike descending the Bright Angel Trail, hiking west on the Tonto Trail to descend Monument Creek, then exiting via the Hermit Trail.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: CIG, BL4, BL5, BL6, BL7, BL8, BM7

**REQUIRED GEAR:** Backpacking gear and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available at the Mile-and-a-half Resthouse, the Three-Mile Resthouse, Indian Garden, Horn Creek, Salt Creek, Cedar Spring (seasonal), Monument Creek, Santa Maria Spring (seasonal) and the Colorado River. Water at the rest houses is not available during the winter. Horn and Salt creeks have water about half the time (see note on quality in the previous description). This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 1B VI	<b>Distance:</b> 23.8 miles
<b>Physical Difficulty:</b> Very Strenuous	<b>Elevation:</b> 6,860 – 2,400 ft.
<b>Time Needed:</b> 2 – 4 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> Passenger Car	<b>Car Shuttle:</b> Yes — or take the shuttle bus
<b>Maps:</b> USGS Grand Canyon 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at the Bright Angel Trailhead, which is located in Grand Canyon Village near the Bright Angel Lodge. The hike ends at Hermits Rest, which is open to private vehicles December through February. At other times of the year it is accessible via the shuttle bus.

### TRIP DESCRIPTION

From the Bright Angel Trailhead, pick up the dusty, well maintained Bright Angel Trail as it heads steeply down through the upper layers of the canyon. Water and toilets are available at the Mile-and-a-half and Three-Mile Resthouses, which you will pass at the 1.5 and 3-mile points respectively (*Note: water is shut off in the winter so the pipes do not freeze*). You'll reach Indian Garden at the 4.6-mile point after losing just over 3,000 feet of elevation. Just past the water fountain, benches and kiosk, look for the signs pointing the way left (west) for the Tonto Trail.

Turn left and follow the Tonto Trail across Garden Creek. After 0.7 miles look for the wooden sign marking the Tonto Trail as it branches left from the main mule route (which leads to Plateau Point). The Tonto becomes more trail-like, and less like a highway, as it travels west around "The Battleship" and begins winding its way up into and around the two arms of Horn Creek. Campsites and toilet are present in the western arm of Horn.

Continue west as the trail loops out and around Dana Butte and slowly begins working its way back into the sheer alcove dubbed “The Inferno”. The trail eventually crosses the drainage of Salt Creek 4.8 miles after departing Horn. Camping and a composting toilet are available off of a spur trail a short distance west of the creek.

The path then travels out and around the formation called “The Alligator”, crossing two minor drainages as it does so, the second of which contains Cedar Spring. After rounding the second arm of “The Alligator”, the route follows the rim of Monument Creek a short distance before descending steeply down through the Tapeats Sandstone along a series of tight switchbacks to the canyon bottom.

Crossing to the west side of the creek, the trail soon passes several campsites and a composting toilet. Just past the latter, look for an obvious “Creek” sign on the right side of the trail. Turn right on this short spur trail to enter the creekbed and head downstream. The route soon enters a very scenic stretch of Vishnu narrows, which features a perennial stream and series of small waterfalls. Moderately skilled climbers will be able to keep their feet dry through this section, but should be cautioned that the rock is polished smooth and affords little traction.

The canyon opens up soon after reaching the base of the “Monument” for which the creek is named and just beyond you’ll arrive at the right (or western) fork of the canyon. Continue following the stream another mile down to the river. There are some great campsites among the tamarisk along the beach just east of where the creek enters the Colorado. If you decide to spend the night, be sure to hang or secure your food. Mice are very active in the area.

Traveling back up Monument Creek to where the canyon forks, follow the cairns up the western arm a short distance to pick up a trail on the left leading up to the base of the Monument. The path soon joins the Tonto Trail, stay right and follow it up the western arm to gain the Tonto Plateau. The trail travels north, paralleling the drainage of Monument Creek, then begins climbing to the east to reach a low saddle below Cope Butte. The path continues down the western side of the saddle to arrive at the junction with the left branching Hermit Trail.

Turn left onto the Hermit Trail to climb at a steeper grade below the knife edge of Cope Butte, which will be on your left. The path then ascends a break in the Redwall known as the Cathedral Stairs before leveling out to travel atop the Redwall to Lookout Point. The trail climbs partially through the Supai then winds in and out of a few minor drainages before traveling at a more level grade to eventually reach the small rest house at Santa Maria Spring (seasonal).

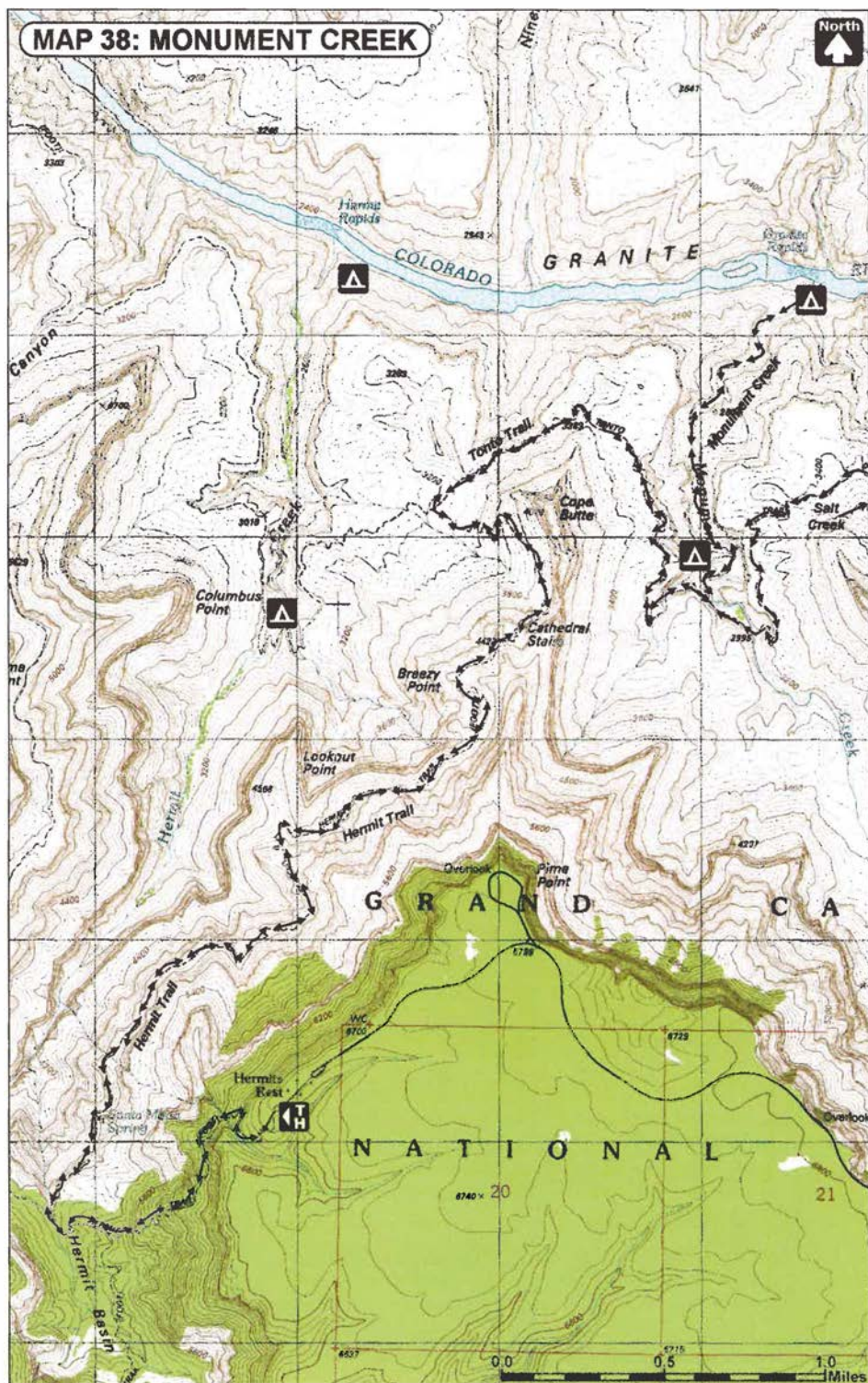
The path ascends the remaining distance through the Supai to reach to a signed junction with the right branching Dripping Spring Trail. Stay to the left, and hike another quarter mile to arrive at a signed junction with the right branching Waldron Trail. Stay to the left once again, continuing upwards along a series of broad, cobbled switchbacks to arrive at Hermits Rest and either the car you spotted earlier or the shuttle bus.

#### *AUTHOR’S RATING ★★★*

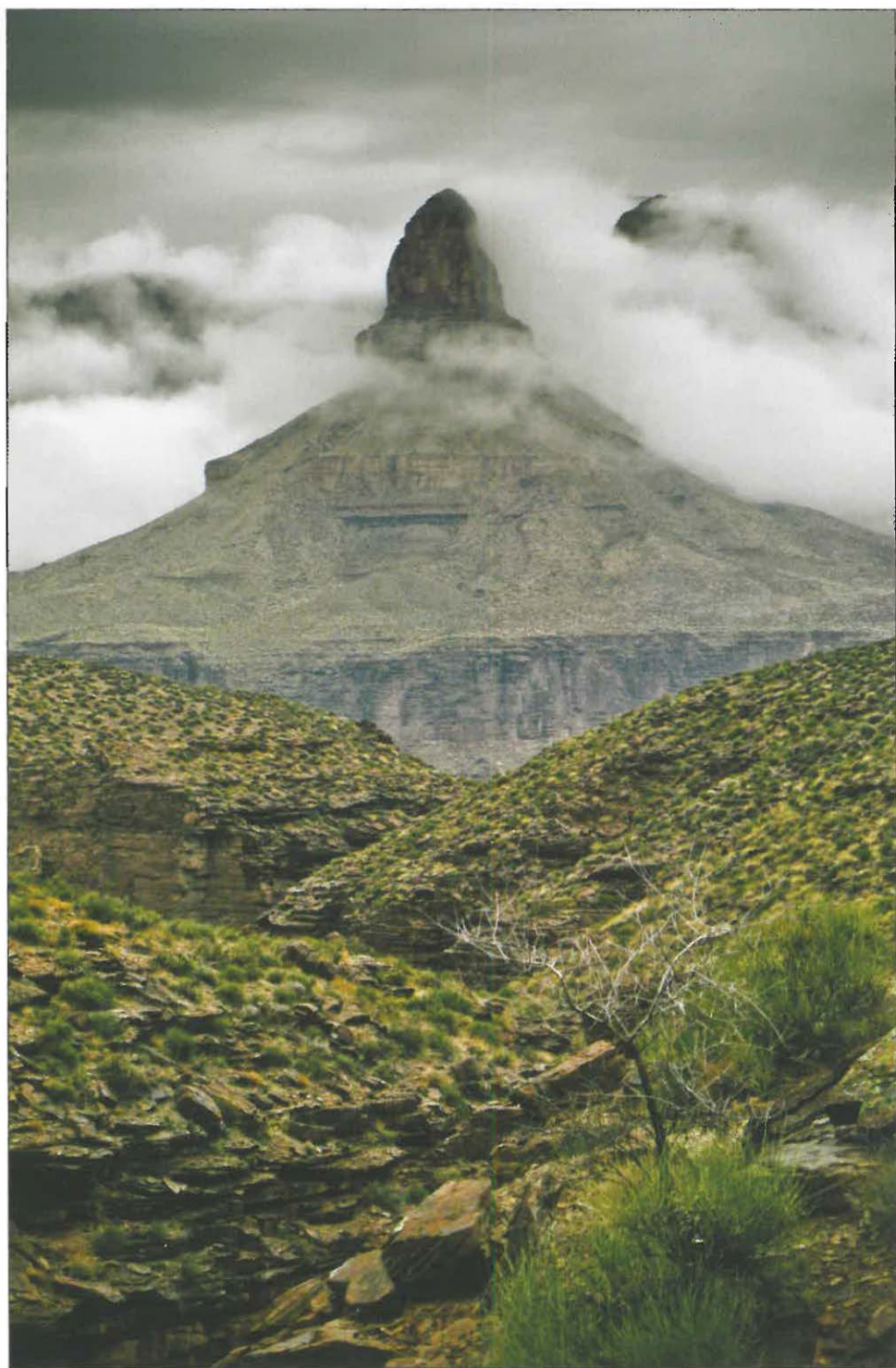
Monument Creek is a good introductory hike for those wishing to get away from the corridor trails but who aren’t quite ready to venture into the more remote areas of the Canyon. Though you’ll likely see other people along the route, the crowds will be left behind soon after leaving Indian Garden.



**MAP 38: MONUMENT CREEK**







*A rainy day at Hermit Creek*

## 39: Hermit Creek

**OVERVIEW:** An on-trail/off-trail non-technical hike to Hermit Creek exploring the Redwall narrows. A technical descent of upper Hermit is also described.

**LOCATION:** Grand Canyon National Park. South Rim. Use area: BM7, BM8

**REQUIRED GEAR:** For the upper technical canyon you will need 2x150' ropes, 40' of webbing, 4 rap rings, harness, descender, helmet, and carabiners. Groups completing the non-technical hike may wish to have a 50' rope (optional) for use as a hand-line.

**SPECIAL CONSIDERATIONS:** Water is available year-round at Hermit Creek and the Colorado River and periodically from Santa Maria Spring, which is located 2 miles from the trailhead. Campsites are located at the Tonto Trail/Hermit Creek crossing and at the river. A permit is required from the National Park Service if completing this hike as an overnight trip.



**ACA Rating:** See Trip Description

**Distance:** 17.5 miles

**Physical Difficulty:** Strenuous

**Elevation:** 6,640 – 2,400 ft.

**Time Needed:** 1 – 2 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Hermit - Passenger Car  
Waldron - High Clearance Vehicle

**Car Shuttle:** No

**Maps:** USGS Grand Canyon 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

**HERMIT TRAILHEAD:** From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). The hike begins at Hermit's Rest, which is open to private vehicles December through February. At other times of the year it is only accessible via the shuttle bus. In the latter case, you may catch a shuttle from the Village Route Transfer point that is found west of Bright Angel Lodge.

**ALTERNATE WALDRON TRAILHEAD APPROACH:** If the road is wet or rain is likely, it is highly recommended that you have a 4-wheel drive vehicle to drive on this road. It may look easy enough when dry, but after rainstorms it becomes a treacherous mud wallow. Drive north out of Tusayan on Highway 64 for 1 mile. Turn left on FR #328 and follow it to the junction with FR #328A. Turn right on FR #328A. The road crosses the railroad tracks after 0.5 miles then forks. Stay to the right at the fork and drive another 0.6 miles and turn left to pass an abandoned building, which now consists only of a foundation, roof and chimney. Drive 1.3 miles to a fork in the road and stay right, following the brown plastic signs with arrows. After 0.5 miles, you'll cross a park boundary road (closed to unauthorized vehicles). Follow the sign straight across this road for the remaining 1.4 miles to a gate across the road that marks the Waldron Trailhead.

### TRIP DESCRIPTION

**OPTIONAL – TECHNICAL DESCENT OF UPPER HERMIT (RATING 3B IV–V):** Whichever trailhead you start your hike from, your goal is to drop into upper Hermit Canyon near a point where the two upper forks join at UTM: 12S 397595 mE,



3997151 mN WGS84 Datum. If you're starting at Hermits Rest, you'll hike southeast from the bus stop, then south to drop into the shallow canyon. If you've parked at the Waldron Trailhead, walk back to the east along the road for 15 minutes or so then hike north. The canyon is shallow and somewhat brushy where you enter at the GPS point listed above.

Hiking downcanyon, the drainage cuts through the upper limestone layers and into the Coconino Sandstone until you eventually arrive at the first drop, which is 60 feet from a rock horn on the left. Just beyond, the canyon drops through a crack into a pool (knee deep when I was here). This obstacle requires a 30-foot rappel from a rock wedged in the bottom of the crack about 10 feet down from the top. A short walk will bring you to the next drop at a point where the canyon bends left with views down into the Hermit valley. The rappel is 60 feet in length from a pinch point beneath a very large boulder on the left. A little downclimbing will bring you to the final rappel, which is 140 feet down a vertical wall from a sturdy tree a short distance back from the rim. Remove your harness and continue down the brushy drainage until it intersects the Waldron Trail.

#### **NON-TECHNICAL HIKING ROUTE (RATING 2B IV-V):**

**Hermits Rest:** From Hermits Rest, pick up the well maintained Hermit Trail as it heads down through the upper layers of the canyon along a series of broad, cobbled switchbacks. After traveling 1.5 miles and dropping 1,240 feet, you'll reach a signed junction with the left branching Waldron Trail.

**Waldron Trailhead:** From the Waldron Trailhead, continue along the dirt road for 0.7 miles to the sign for the Waldron Trail. Turn right and follow the trail as it winds its way beside a shallow wash for 0.5 miles before descending steeply down a series of sharp switchbacks into Hermit Basin. The path travels at a more level grade beside Hermit Creek before reaching the junction with the Hermit Trail at the 2.7-mile point.

**Continuation of the Hermit Trail:** Remain on the Hermit Trail and hike another quarter mile to a signed junction with the left branching Dripping Spring Trail. Stay to the right on the Hermit Trail and follow the path as it drops partially through the Supai sandstone along a few switchbacks to a small rest house at Santa Maria Spring (seasonal). From the spring, you'll have views to the left into the Redwall slot of Hermit Canyon, which is the destination of this trip.

The trail continues at a level grade as it travels to the northwest along a bench between Supai layers. After winding in and out of a few minor drainages, the path descends through the remaining Supai to the first of two promontories, which jut out from the rim (the second promontory is called Lookout Point). Those looking for the most direct way down can depart the trail on the upcanyon side of the first promontory at UTM: 12S 390887 mE, 3992593 mN WGS84 Datum. Otherwise, continue along the trail to Lookout Point.

Whichever route you choose, depart from the trail and descend the steep slope to the top of the Redwall below. Once atop the Redwall, simply wind your way upcanyon along the slope above the rim. The route is a little rough and rocky at first, but becomes easier as you proceed. As you near the head of the canyon, you'll need to work your way around a few minor gullies before arriving at the canyon's upper forks. Work your way into the left fork (the one closest to you), which provides easy access to the canyon floor.

The Redwall features some minor narrows, but is unfortunately not terribly scenic. The disappointment is multiplied by the fact that the canyon becomes increasingly choked with trees and brush the farther downcanyon you proceed. Along the way, one steeply

sloping dryfall, approximately 30 feet in height, is encountered that may be downclimbed with care by following a series of cracks and ledges on the left. A belay may be useful for less experienced members of the group.

Continuing downcanyon, flowing water eventually appears underfoot, providing additional sustenance to the ubiquitous plant life as well as creating a few minor waterfalls. When the Redwall slot widens, climb the slope on canyon right to locate a faint, but cairned trail that contours along the hillside to arrive at the Tonto Trail. There are good campsites and a composting toilet where the Tonto crosses Hermit Creek.

**RIVER:** Those wishing to visit the Colorado River may continue down through the camp to Hermit Creek once again. The river is an easy 1.5-mile walk (one way) in the creekbed itself or along sections of good trail on one side of the stream or the other. The beach features good campsites on the sand and views of one of the larger rapids in the Grand Canyon.

**EXIT:** Those ready to return to the rim should turn right (east) onto the Tonto Trail and follow it as it ascends at a moderate grade to a signed junction with the Hermit Trail. Turn right onto the Hermit Trail to climb at a steeper grade below the knife edge of Cope Butte, which will be on your left. The path then ascends a break in the Redwall known as the Cathedral Stairs before leveling out to travel atop the Redwall back to Lookout Point. Retrace your steps the remaining distance to the rim and your vehicle.

#### **AUTHOR'S RATING ★★**

Add an extra star if just hiking the trail to the river. I did the Redwall hike on a rainy winter day when the canyon was filled with fog and low clouds. Though not the best weather for hiking, it provided the opportunity to see another of the many moods of the Canyon. At a later date Rich Rudow, Aaron Tomasi and I completed the upper canyon.



*Tapeats narrows in lower Hermit Creek*







## 40: Big Spring Canyon

**OVERVIEW:** A remote backpacking/canyoneering trip to some nice Redwall narrows and a perennial stream (a rarity). Unfortunately, the beauty of the canyon is offset by hours of tedious and thoroughly unpleasant bushwhacking through thick and prickly brush followed by a steep exit route. Don't say I didn't warn you.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AR9

**REQUIRED GEAR:** 2x200' ropes, 80' webbing, 8–10 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available throughout much of Big Spring Canyon, though the exit route is completely dry. All members of the group should possess good climbing skills. This canyon requires good natural anchor skills. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 8.6 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 7,900 – 5,240 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Summer

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS King Arthur Castle 7.5

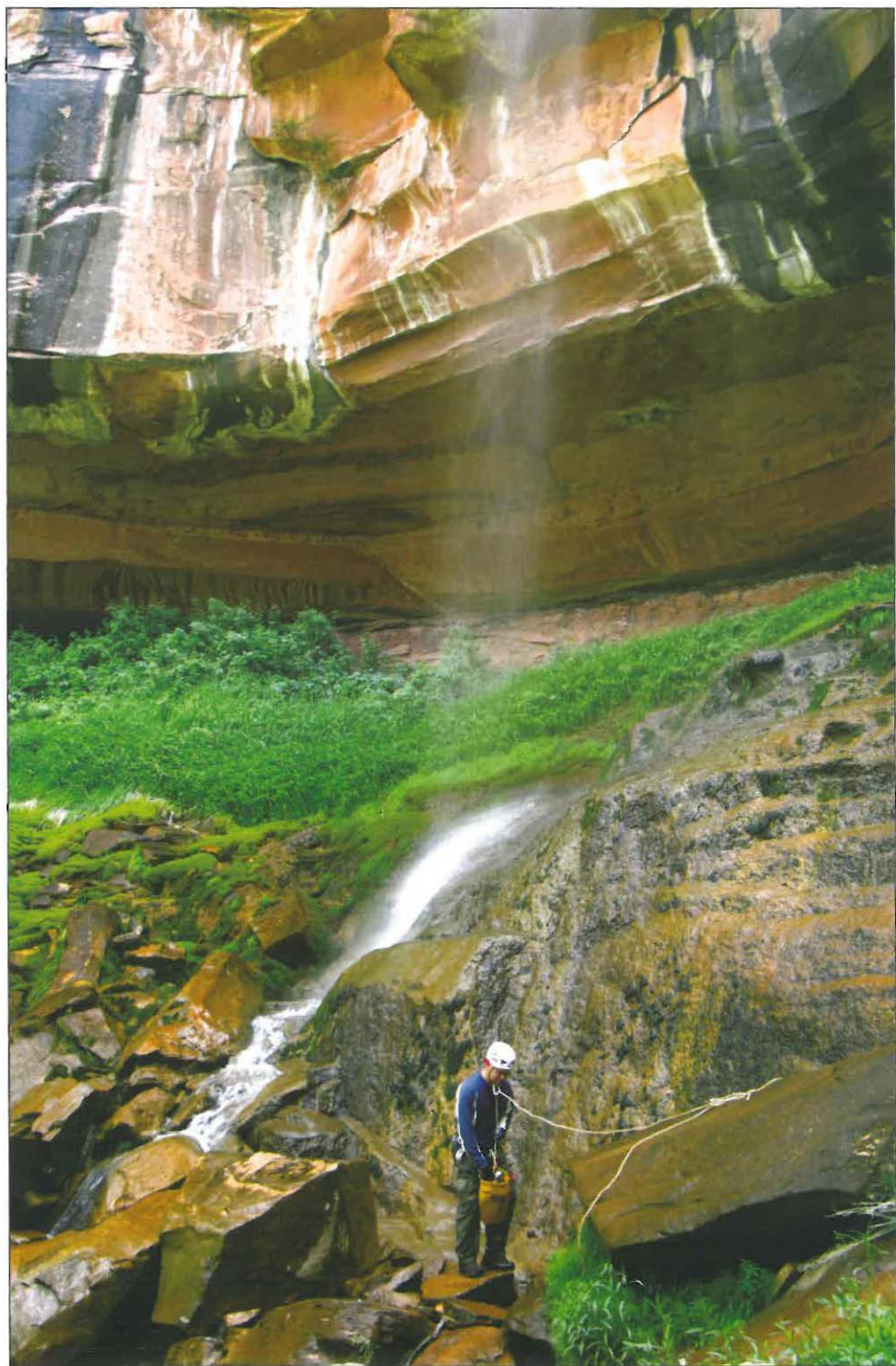
**Navigation:** Moderate

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A and drive to Jacob Lake. Travel south on Highway 67 for about 25.5 miles to the signed turnoff for Forest Road 22, located just past the Demotte Campground and mile marker 605. Zero your odometer and turn right onto FR 22 (which is dirt but well graded) heading west towards “Fredonia” and “Viewpoints”. After 2 miles, turn left onto FR 270 towards Fire Point. At mile 4.3, head right onto FR 223 and follow it to the 10.1-mile point to turn left onto FR 268. At the 10.4-mile point, the road forks, stay to the left on FR 268B and you'll soon enter GCNP at mile 11.6. At the 11.8-mile point, turn left at the sign for Kanabownits (with a backwards “K”). Follow this somewhat rougher road to the 13.6-mile point and pull off the side of the road at any convenient spot near UTM: 12S 389397 mE, 4021036 mN WGS84 Datum. There will be a meadow on the right with a shallow trench running through it. The trench is the start of Big Spring Canyon.

### TRIP DESCRIPTION

From the car park, walk east across the aspen and fir dotted meadow following the minor Big Spring drainage as it travels between low hills. The walking is easy at first, but this doesn't last. As the hillsides on either side become steeper, you'll be forced into the center of the drainage and will soon be climbing over deadfall and pushing through thickets of brush and barbed New Mexico Locust. Prepare for a sustained and unpleasant thrash-fest lasting several hours. Eventually water appears underfoot, but the flow only adds sustenance to the dense undergrowth. The drainage eventually cuts into the Coconino Sandstone, which forms several moderately sized drop-offs. Good climbers can make their way around the drops on one side or the other, but, because of the exposure, some may prefer a belay or to rappel.



*Rope management after the first rappel in Big Spring Canyon*

Finally, after more dense foliage, you'll arrive at a large drop-off and falls in the Supai Sandstone. Downclimb at a notch found just left of the stream, to rig off of a tree for a 160-foot rappel, much of which is free-hanging. A short thrash later, you'll reach another 160-foot rappel, which can be rigged from some small but sturdy trees just left of the stream. Rappel #3 is 90 feet in length from a tree on canyon left. Rappel #4 is 40 feet in length from a tree in the center of the canyon. A short distance later you'll arrive at the start of the Redwall Limestone. Looking downcanyon from this point, you'll see a large fault that bisects the canyon at a 90-degree angle. The ravine on the left formed by the fault is the exit route.

The Redwall is by far the highlight of the trip and it begins with a 90-foot sloping rappel from a tree on canyon right. Just beyond is an 80-foot slope that is probably best rappelled due to the slickness of the rock (a tree in the middle of the canyon may be used for an anchor). Below is a downclimb at a chockstone, followed by a triple drop that can be completed in one shot via a 125-foot rappel from a large boulder at the top. The next rappel is 35 feet in length from a pinch point on the left to descend a large chockstone. The final rappel is 45 feet from a pinch-point in the watercourse formed by two very large boulders into a short, but pretty, slot. The canyon opens up soon thereafter and, unsurprisingly enough, the undergrowth returns. Fortunately, only a short bushwhack is required to reach the exit ravine, which enters from the left, and is happily brush-free.

After filling up on water, proceed left up the rocky gully as it climbs steeply towards a saddle located between Elaine Castle and Lancelot Point. Remain in the bottom of the main drainage as you proceed. After some climbing, you'll encounter a big two-stage chockstone in the lower Redwall requiring a climb without packs on the right (facing upcanyon). A second climb follows shortly afterwards. In the lower Supai be sure to ignore a clear path on the right (facing uphill), which ends in a cliff that forms the right wall of the ravine. This route is a dead end. In the upper part of the Supai gully, you'll need to head to the left (facing uphill once again) to bypass a cliff, then, after climbing up above the cliff, veer back to the right to regain the main ravine. Continue the remaining distance to reach the saddle. A small, waterless campsite may be found on the northeast side of a small hill located in the middle of the saddle at UTM: 12S 384971 mE, 4018730 mN WGS84 Datum.

Those who haven't reached their limits of discomfort and are looking for an opportunity for further exploration can proceed down the corresponding fault on the other side of the saddle into Modred Abyss. If you decide to pursue this route, stay towards the left (north) side of the fault as you descend to identify a steep and narrow break that will permit you to descend through the Supai. Once you've identified this break, the remainder of the route to Modred involves a straightforward hike/downclimb/thrash around, down and through boulders, rocks, and brush. In the lower parts of the ravine, the walking becomes easier as it descends at a gentler grade through the Muav Limestone to the perennial stream in Modred. If you happen to travel up the Abyss, you'll want to stay to the left where the stream forks about 20 minutes later to reach the spring.

Back on the saddle beneath Elaine Castle; follow the saddle ridgeline to the northeast heading towards Lancelot Point. The route is very steep in places, but straightforward. As you climb higher, a faint use trail will begin to form. Follow this path as best you can to the base of the Coconino where a break may be found just to the right of the ridgeline that forms the saddle. The ascent through the Coconino requires one climbing move to ascend a low cliff. This is best done without a pack, perhaps with a boost/spot from below. Once



above the Coconino, the route bends to the right to ascend through a break in the Toroweap and Kaibab layers to reach the forested rim of Lancelot Point.

At first the walking is easy and pleasant along the rim as you hike east and slightly north through the Ponderosa Pines, but this soon ends as the forest degrades into thickets of New Mexico Locust and deadfall. Continue in a northeasterly direction choosing the path of least resistance for about 2.8 miles until you reach a dirt road. Turn left on this road and follow it the remaining mile back to your vehicle.

### *AUTHOR'S RATING* ★★

This hike has its moments; unfortunately, those moments are all hard won. The first two rappels in the Supai are quite nice and the Redwall, though not terribly narrow, is made more scenic by the small perennial stream. To enjoy these rewards you have to be willing to suffer through some of the least enjoyable hiking to be found within the Grand Canyon. If it weren't for the brush I'd give the canyon 3-stars.

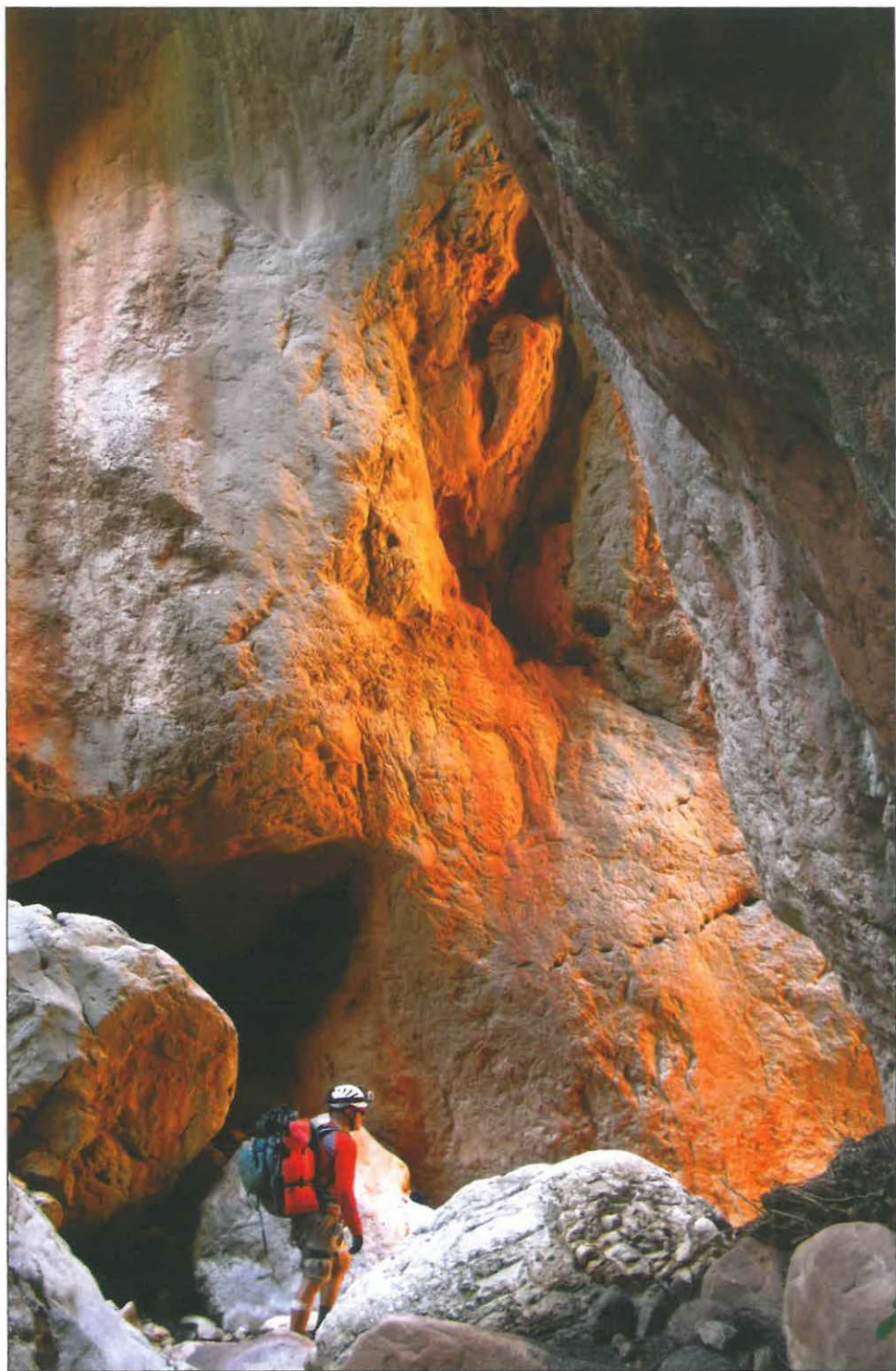


*The Redwall narrows of Big Spring Canyon*









*The Redwall narrows of Muav Canyon*



# 41: Muav Canyon (aka: White Creek)

**OVERVIEW:** This trip begins at Swamp Point and descends Muav Canyon (also called White Creek) to the river along the North Bass Trail with occasional diversions to descend the technical Redwall and Tapeats slots. Along the way, a large arch, some short, but scenic narrows, and a pretty waterfall are encountered.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AS9

**REQUIRED GEAR:** 1x200' rope (or 2x100' ropes), 60' webbing, 8 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit may be required during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available from a small spring in upper Muav Canyon, in potholes of variable quality in the Redwall, from Shinumo Creek, and at the Colorado River. This canyon requires good natural anchor skills. All members of the group should possess good climbing skills. Camping gear must be kept dry through the pools in this canyon. Access may be limited by fires that frequently set Swamp Point ablaze. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 3A VI	<b>Distance:</b> 27.0 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 7,500 – 2,400 ft.
<b>Time Needed:</b> 2 – 4 days	<b>Best Time of Year:</b> Spring, Summer, Fall
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS King Arthur Castle, Havasupai Point 7.5	<b>Navigation:</b> Moderate

## DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A and drive to Jacob Lake. Travel south on Highway 67 for about 25.5 miles to the signed turnoff for Forest Road 22, located just past the Demotte Campground and mile marker 605. Zero your odometer and turn right onto FR 22 (which is dirt but well graded) heading west towards “Fredonia” and “Viewpoints”. After 2 miles, turn left onto FR 270 towards Fire Point. At mile 4.3, head right onto FR 223 and follow it to the 10.1-mile point to turn left onto FR 268. At the 10.4-mile point, the road forks, stay to the left on FR 268B and you’ll soon enter GCNP at mile 11.6. At the 11.8-mile point, stay right at the sign for Kanabownits (with a backwards “K”). Follow this road about 8 miles to its end at Swamp Point and park.

## TRIP DESCRIPTION

From Swamp Point the trail begins at the sign and negotiates a series of switchbacks to a 4-way intersection at Muav Saddle. Turn left (south) on the North Bass Trail (straight continues west to Powell Plateau and right leads to an old patrol cabin) to begin contouring along the hillside above Muav Canyon. The path soon passes Queen Anne Spring, which forms a small stream that crosses the trail then eventually descends a ridge to enter the shallow drainage of White Creek. Continue down the rocky and brushy creekbed to the

top of the Redwall at which point the trail climbs up on the right to begin a long bypass.

Instead of following the trail, we'll remain in the drainage to arrive at the first rappel, a 35-footer into a shallow pool using a tree on the left as an anchor. Rappel #2 is 100 feet in length from a rock in a crack on the right down a double drop into a lush area featuring a large natural arch. A brief walk below will bring you another 100-foot rappel that can be rigged from a pinch point on the left into a wider and rather less scenic area. Continue downcanyon to rappel #4, which is 60 feet in length from a crack/arch on the left. Some brushy hiking and a few downclimbs (keep your eyes peeled for poison ivy) will bring you to rappel #5, which is 40 feet in length from a pinch point on the right. The next rappel is 50 feet long down a chute and into a pool and can be rigged from a tree on the right. The last obstacle is a nuisance drop of 25 feet that may be rigged from a boulder just to the left of the watercourse. Not far below you'll find cairns that mark the return of the North Bass Trail as it descends steeply into the drainage by way of a rocky hillside on the right.

The next few miles are fairly uninteresting as the route travels down the rocky drainage through the Bright Angel Shale. At the top of the Tapeats (near benchmark 3480' on the map) the official trail departs the streambed on the right once again, bypassing the very best part of the canyon. Unless flash flooding is an imminent risk, you'll instead want to remain in the creekbed to soon arrive at a short stretch of pretty narrows in the Tapeats, which begins with a vertical drop. Those who do not care to rappel can see most of the narrows by following a path on the left to enter the Tapeats via a small tributary drainage and then walking up from below. The technical part of the canyon consists of two 45-foot rappels. The first may be rigged from a rock pile at the head of the canyon, and the second from a ~~kn~~not-chock in a crack on the left.

After enjoying the narrows, continue downcanyon through the remainder of the Tapeats following the drainage as it winds its way into the Vishnu Schist to eventually arrive at the confluence with Shinumo Creek, which enters from the left, adding considerable flow to the stream as it does so. About ¼ mile below this confluence the North Bass Trail rejoins the drainage forming a decent footpath on one side of the creekbed or the other. The trail follows Shinumo Creek downstream for another 1.5 miles before exiting the drainage on the left (east) side of the creek via a well-cairned track, but we'll ignore this route once again and remain in the creek (for those interested, the trail climbs 650 feet to a saddle before descending to a nice beach and campsites next to the Colorado River that are frequented by river rafters). Continuing down the streambed you'll arrive at a set of pipes that cross the drainage and several solar panels that are located on the left bench of the creek. From here you can either pick up a cairned trail that climbs up and out of the canyon on the left (which leads to the same beach described above) or continue down the bed of the creek. The latter route dead-ends at the river and offers nothing in the way of campsites, but features a scenic waterfall that may be downclimbed on the left (do not go down unless you are absolutely sure you can get back up again) and a short section of scenic granite narrows.

When ready, return the way you came, following the trail around the sections of technical narrows, or use this as a jumping off point for further adventures.

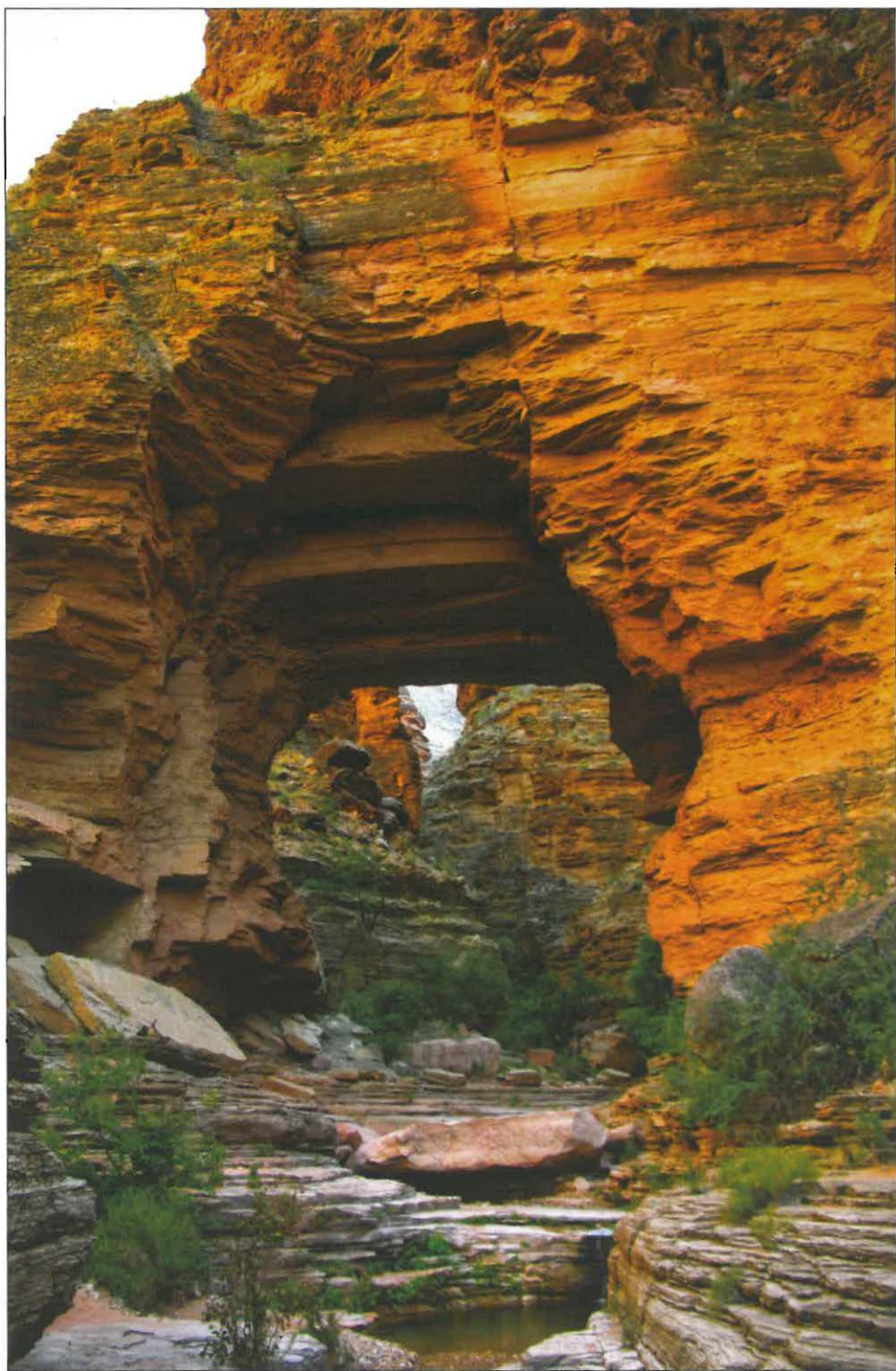
#### *AUTHOR'S RATING ★★*

Rich Rudow, Albert Putzig and I descended Muav Canyon on a scorching August summer day, camping the first night on a flat bench above Shinumo Creek. The next day we hiked to the river (missing a river runner breakfast by 30 minutes) before venturing deeper into the canyon.









*Royal Arch*

## 42: Royal Arch Creek

**OVERVIEW:** A down-and-back trip via the Point Huitzil route to Royal Arch and the Colorado River. The canyon could also be accessed via the more common method by descending the South Bass Trail, hiking west along the Esplanade, descending Royal Arch Canyon, and then returning to South Bass on the Tonto Trail to close the loop. This latter itinerary would add an additional two or more days to the trip.

**LOCATION:** Grand Canyon National Park. South Rim. Use areas: Point Huitzil route - SE9, BR9; South Bass - BQ9, BR9

**REQUIRED GEAR:** 2x200' ropes, 80' webbing, 2 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available in and below the Redwall Gorge of Royal Arch Creek and at the Colorado River. Those descending the South Bass Trail may find water periodically available at Seep Spring (between Chemehuevi and Toltec Points), and from temporary pools along the Esplanade. Along the Tonto Trail, water may be found periodically in Copper Canyon, and from potholes in Bass Canyon below the Tonto Trail. Garnet Canyon often has water, but the mineral content is extremely high. Excellent route-finding ability is required to descend the Point Huitzil Route. Those returning via the Point Huitzil Route or Esplanade Trail should have at least one strong climber in the party in case there is no rope at the 20-foot cliff face above the Toltec drainage. Upper Elves Chasm is home to the critically endangered Kanab ambersnail, which were released in the canyon in 1999 to improve their chances of survival. Adult snails grow to 1 inch in length and have amber colored shells. They are typically found on host plants, primarily the scarlet monkeyflower and watercress. Please do not step on or disturb these plants as you travel through the canyon. Use care on the wet and slick rocks in the lower part of the creek. Several people have slipped and fallen to their deaths in this area. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 3B VI	<b>Distance:</b> 15 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 5,690 – 2,820 ft.
<b>Time Needed:</b> 3 – 4 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Explorers Monument 7.5	<b>Navigation:</b> Difficult

### DRIVING DIRECTIONS

From Flagstaff, take I-40 west for approximately 30 miles to Highway 64 (Exit 165, just east of Williams). Travel north on Highway 64 approximately 60 miles to the South Rim (\$25 per vehicle to enter the park). Drive into the park and follow the signs towards the Grand Canyon Village. Follow the main road past the Bright Angel Lodge until you reach Maswik Lodge. Turn right after passing the lodge and drive around back to a paved road that leads to the kennels. Follow the signs to the kennel, but drive past it until you cross the railroad tracks. Turn left onto Rowe Well Road. After a short distance, the road

becomes dirt (or mud after rains or melting snow). It is highly recommended that you have a 4-wheel drive vehicle to proceed on this road, it may look easy enough when dry, but after a rain it becomes a treacherous mud wallow.

Turn left on Rowe Well Road and drive south for approximately 3 miles to the park boundary. You are now in the Kaibab National Forest and on FS road #328A. Continue on 328A for approximately one mile to FS #328. Turn right at the intersection. There is a sign indicating Tusayan (6 miles) to the left and Pasture Wash to the right. Turn right and continue west on #328 for approximately 15.6 miles to the Havasupai Nation's boundary (there is a cattle guard and "No Trespassing" sign posted here). The boundary is sometimes staffed by Havasupai rangers who will charge \$25 to drive through tribal land.

Once inside the reservation, continue approximately 1.7 miles to an unmarked fork. A short distance down the right fork, two upright posts are visible. Take the right fork, but do not drive through the posts, instead take a 90 degree right just before reaching them and proceed to the north. After driving 1.9 miles, you will reach the boundary with the Kaibab Forest again, another 0.5 miles will bring you to the park boundary (marked with a cattle guard and gate - please close the gate behind you). Two more miles brings you to the old, boarded up Pasture Wash Ranger Station at UTM: 12S 374440 mE, 4000096 mN WGS84 Datum. A short road leads to the ranger station and places to park. No camping is permitted within 500 feet of the Pasture Wash Ranger Station. Those beginning the hike at the South Bass Trailhead will proceed north past the ranger station another 3.6 miles to the trailhead.

## *TRIP DESCRIPTION*

**APPROACH OPTION 1 - ESPLANADE TRAIL:** From the South Bass Trailhead, follow the South Bass Trail down into the Canyon. The trail is easy to follow as it descends to the east through the upper limestone layers of the canyon towards the major drainage of Bass Canyon. The trail then heads steeply down the drainage to the Esplanade (as evidenced by the red rocky sandstone). When you reach the distinct fork in the trail, head west (left). The trail along the Esplanade is mostly easy to follow and is marked by cairns at moderate intervals. The trail becomes fainter where rockfall from the yellow Coconino sandstone covers the route. The second major drainage encountered along this route contains Seep Spring, which flows intermittently. If the trail crossing is dry, try walking up the drainage a short distance. Continuing on, there are some flat, if dry, campsites where the trail rounds Montezuma Point. After passing the point you will come to the first of three main drainages down into the main canyon of Royal Arch Creek. Depart from the trail at the head of the main drainage at UTM: 12S 372022 mE, 4002891 mN WGS84 Datum and begin hiking down the rocky streambed.

**APPROACH OPTION 2 - POINT HUITZIL ROUTE:** From the ranger station, walk back out to the main road then turn right onto a closed road. Follow this track until you reach an old phone line, then leave the road and follow the line cross-country. The goal is to travel in a northwesterly direction towards GPS point - UTM: 12S 371939 mE, 4001710 mN WGS84 Datum at the rim of a minor drainage. From this point, work your way down into the drainage via the path of least resistance, then turn left and head downcanyon. You will soon reach a large dryfall in the Kaibab Limestone overlooking the Grand Canyon.

Walk to the right a short distance to identify a break in the cliff. Climb down this Kaibab break and follow the somewhat faint hiker trail (marked infrequently with cairns) down the steep talus slope to the top of the Toroweap Formation. Follow the trail to the right, passing two stone towers. Once past the towers work your way and to the right,



towards the cliff, then down a series of Toroweap ledges. Evidence of those who have come before provides proof that you are on the right track. When ready, proceed down to a group of tilted Coconino Sandstone slabs. Scan the edges of the slabs for a subtle notch on the right edge of a slab – the notch is the key to this route and is located at UTM: 12S 0371401 mE, 4001991 mN WGS84 Datum. When you locate this notch, walk up to it and look down. You'll see that it's possible to climb down at this point into a small tunnel. The tunnel leads beneath the sandstone slab to a ladder made from a log with notches cut into it for use as steps. Climb down the ladder and out onto the slab below.

Walk to the right along the base of the cliff to a crack allowing an 8-foot downclimb (to the left). Once down, the route continues along the base of the cliff a short distance. Look to the left for the path to descend steeply towards the drainage, before swinging upcanyon to the left. It soon proceeds down once again on very steep slabs in which moki steps have been chopped. From here, the path takes off to the right, remaining up against the cliff face for some distance before arriving at a break in the Coconino. The path then simply heads down through the break (on loose gravel once again) towards a prominent dark red ridge that can be seen far below. The route eventually travels down the spine of this ridge to drop into the Royal Arch drainage.

The walking now becomes considerably easier as you travel down the dry, rocky wash. There is no real trail for the majority of this section (a few cairns every now and then), however, you can't get lost since the route remains in the streambed.

**APPROACH - CONTINUED:** A short distance below the cairns that mark the Tonto Trail, you'll arrive at a sheer pour-off in the streambed. This may be passed by following a cairned route on the right hand side. Those who choose the left side should, according to the National Park Service, "prepare for a thrilling traverse along an exposed ledge only a few inches wide". The traverse is not technically difficult, however the fact that you'll die if you slip will probably get your heart racing a little (especially with the weight of your pack pulling you back from your tiny perch). There are two other short exposed traverses around protruding boulders along this route, after which, the trail descends a talus slope back to the relative safety of the canyon bottom. The route to the right is less exposed and requires a crawl through a hole before following a series of ledges to a talus slope that can be descended to the bed of the drainage below the fall.

Continuing downcanyon, a dryfall created by a large chockstone is eventually encountered; this may be downclimbed on the right side by handing down packs. Lower in the drainage you may encounter two deep pools. These may be bypassed by traversing a bench on the left. Get back into the creekbed using a series of ledges. Farther downcanyon, you will encounter cairns leading up the east (right) side of the drainage. This marks the standard route to the river and will be the path taken on the return from Elves Chasm. Remaining in the streambed, water soon appears underfoot and the canyon narrows as you enter the Muav Limestone. Small drop-offs form several charming grottos and pools. Good climbers will be able to keep their feet dry by using ledges on one side of the canyon or the other. After ½ mile, Royal Arch comes into view; good camping is available below the arch on the many flat ledges.

Just beyond the arch is the first of two rappels in the canyon. There are several large chockstones that can be slung at the top of the drop as an anchor for this 170-foot rappel. A short hike will bring you to the second falls. Climb around on the left and use a sturdy tree as an anchor for a 150-foot rappel (largely free hanging). While no more rappelling is required, there are several drop-offs and downclimbs to negotiate in order to descend the

canyon (all but one are on found on the left). The canyon becomes increasingly more scenic as you proceed with beautiful falls, glens, springs and grottos topped off by the famed Elves Chasm falls featured in many magazine photographs.

As you near the river, turn right and follow the cairned route that marks the unofficial start of the Tonto Trail (the trail formally begins at Garnet Canyon) east along the Colorado as it travels up and down over rough rock. The going is fairly slow; keep your eyes peeled to avoid being fooled by one of the many braided trails. Follow the path to the Toltec drainage, which is the first major streambed encountered.

**EXIT OPTIONS 1 AND 2 - POINT HUITZIL ROUTE AND ESPLANADE TRAIL:** Upon reaching the Toltec drainage, turn right and follow the path as it travels steeply up the hillside. After some climbing, you'll reach the base of a 20-foot cliff. More likely than not a rope will be in place at this point that will aid in the ascent; however, if no rope exists, your best climber will need to free-climb the obstacle and fix a rope for the rest of the party. Above the cliff the trail gains a little more elevation before leveling out and contouring west, then south before dropping back into the Royal Arch Drainage.

Reverse the directions above to reach the rim via either the Point Huitzal Route or Esplanade Trail.

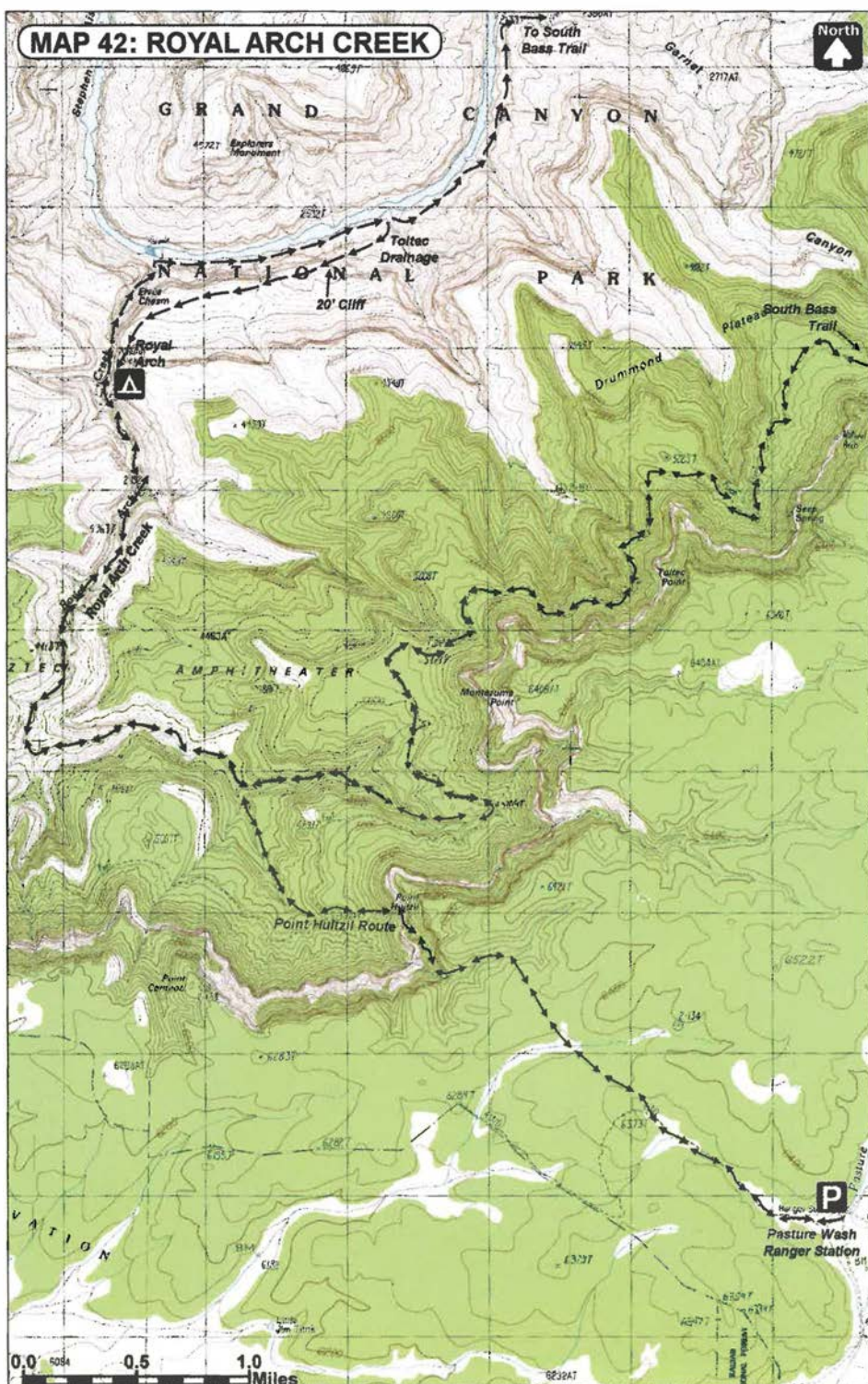
**EXIT OPTION 3 – TONTO TRAIL TO SOUTH BASS:** Follow the route east near river level as it passes over more rough rock up along the hillside below the Tonto Plateau. Eventually the trail will climb up and into the major drainage of Garnet Canyon. From Garnet the trail climbs up to top out on the Tonto Plateau where it levels out (this is also the official start of the Tonto Trail). It's easy flat walking from here as the trail winds in and out of a few minor drainages through brittlebush covered slopes with great scenery. Eventually you will arrive at the major side drainage of Copper Canyon that may be identified by the large yellow dome of Mt. Huethawali which sits high above Evolution Amphitheater at the head of the canyon. The trail continues through Copper Canyon to resume its course along the Tonto on the other side.

From Copper, resume your hike eastward on the Tonto Trail. The path climbs onto the plateau once again then follows a series of contoured ridges. The dominant shrub along this section is blackbush (different from the other side of Copper, perhaps due to different soil composition?). After rounding Tyndall Dome, the major drainage of South Bass Canyon will become visible. The trail heads into the drainage where it joins the South Bass Trail, which leads left, down to the river, and right, to the rim. Turn right and begin the climb upwards. As you reach the head of the canyon, the trail passes through a brushy section before reaching the Redwall and the steep climb up to the Esplanade. Once on top of the Esplanade, the trail becomes more level as you travel south towards the rim to arrive at the right branching junction with the trail leading to Royal Arch Creek. Stay left at the junction and climb the remainder of the way to the South Bass trailhead.

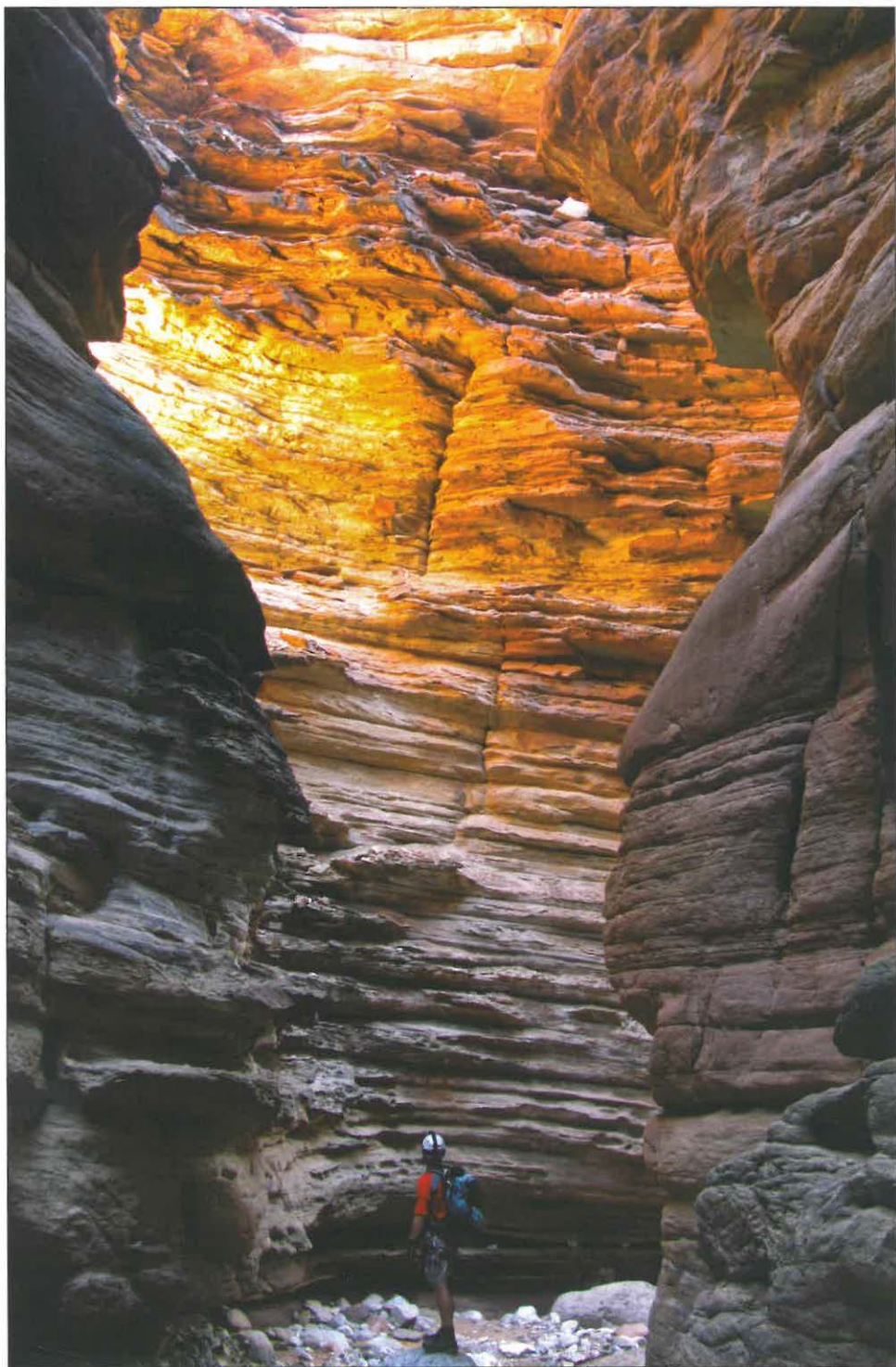
**AUTHOR'S RATING** ★★☆☆

Years ago my wife and I hiked the Royal Arch Route as a 4-day backpacking trip. Later I completed the canyon via the Point Huitzal Route as a three day backpacking trip with a group of 4 hikers. Fortunately, one member of the party had already descended the route, which greatly simplified the navigational difficulties. On day 1 we camped on the Muav benches beneath Royal Arch. On day 2 we carried day packs on a technical descent of the canyon, then back to our base camp beneath the arch. Day 3 we retraced our steps to the rim.

**MAP 42: ROYAL ARCH CREEK**







*The Tapeats narrows of Blacktail Canyon*

## 43: *Blacktail Canyon*

**OVERVIEW:** Blacktail Canyon features a short set of stunning Tapeats narrows second only to Deer Creek. Unfortunately, the canyon is extremely difficult to access by foot. My group was able to access the canyon on a 23-mile circum-floatation packrafting trip around Powell Plateau (entering at Shinumo Creek and exiting at Stone Creek) but received a \$275 fine for exceeding a proposed 5-mile packrafting “rule” from the NPS for our troubles. This rafting route is briefly described in the hopes that the Park Service will relax their stance as they become more comfortable with packrafts as a valid use of Park resources. Until that time, the canyon is most easily accessed by river parties.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AU9

**REQUIRED GEAR:** 1x100' rope, 20' webbing, 3 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. The packrafting route requires a packraft, paddle, wetsuit and personal floatation device.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River and in Blacktail Canyon. This canyon requires good natural anchor skills. All members of the group should possess good climbing skills. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service (though they may refuse issuance for the route described).



<b>ACA Rating:</b> 3A VI	<b>Distance:</b> 5 miles
<b>Physical Difficulty:</b> Moderately Strenuous	<b>Elevation:</b> 4,160 – 2,135 ft.
<b>Time Needed:</b> 2 – 4 hours	<b>Best Time of Year:</b> Any
<b>Vehicle:</b> N/A	<b>Car Shuttle:</b> N/A
<b>Maps:</b> USGS Powell Plateau, Explorers Monument 7.5	<b>Navigation:</b> Easy

### TRIP DESCRIPTION

**BLACKTAIL CANYON:** This description begins at the beach at the mouth of Blacktail Canyon. Excellent climbers who are comfortable with exposure can test their skills by ascending up through Blacktail Canyon to pick up the trail described below on the return. The rest of us (with lesser climbing skills and tolerance of exposure) might prefer to descend the canyon, as we canyoneers normally do, from top to bottom.

From the mouth of Blacktail Canyon, pick up a minor use trail that begins just downriver of the narrows and follow it up to the top of the Tapeats cliffs. Once on top, the path becomes more distinct as it contours along the rim of the canyon to the northeast to eventually descend back into the bed of the drainage above the narrows. A short walk will bring you to the start of the narrows and the first rappel which is 45 feet in length from a pinch point at the top of the drop. Rappel #2 is just beyond and is 50 feet long from a rock under a shelf on the right located somewhat back from the edge. You'll now find yourself in a gorgeous Tapeats slot that is second (albeit a distant second in my opinion) only to Deer Creek in beauty.

Continuing downcanyon the next drop can be bypassed by following a small shelf on the left to a point where it is possible to climb back down to the canyon floor. Just below this obstacle lies the third rappel which is a 30 feet in length into a shallow pool fed by a spring using a pinch point at the top. After pulling your rope, remove your harness for the short walk back to the river.

**PACKRAFTING TRIP – SHINUMO CREEK TO STONE CREEK:** The current draft of the Grand Canyon Backcountry Management Plan is proposing a 5-mile limit for packrafting trips. Since the plan has yet to be finalized, this route information is presented here in the hopes that the rules, when issued, will be somewhat more favorable to packrafting than those currently proposed. Be aware that this route is quite a long one for a packraft and offers significant whitewater and portaging challenges.

From the beach just above the mouth of Shinumo Creek, launch your packraft into the river and paddle to the left (south) shore to portage the Shinumo Rapids. It may be possible to run Hakatai Rapids (which is what we did), but you'll want to portage Wathenberg Rapids on the left. After stopping at Elves Chasm, walk your boats down below the rapids on the left and then re-enter the river to float the remainder of the way to Blacktail.

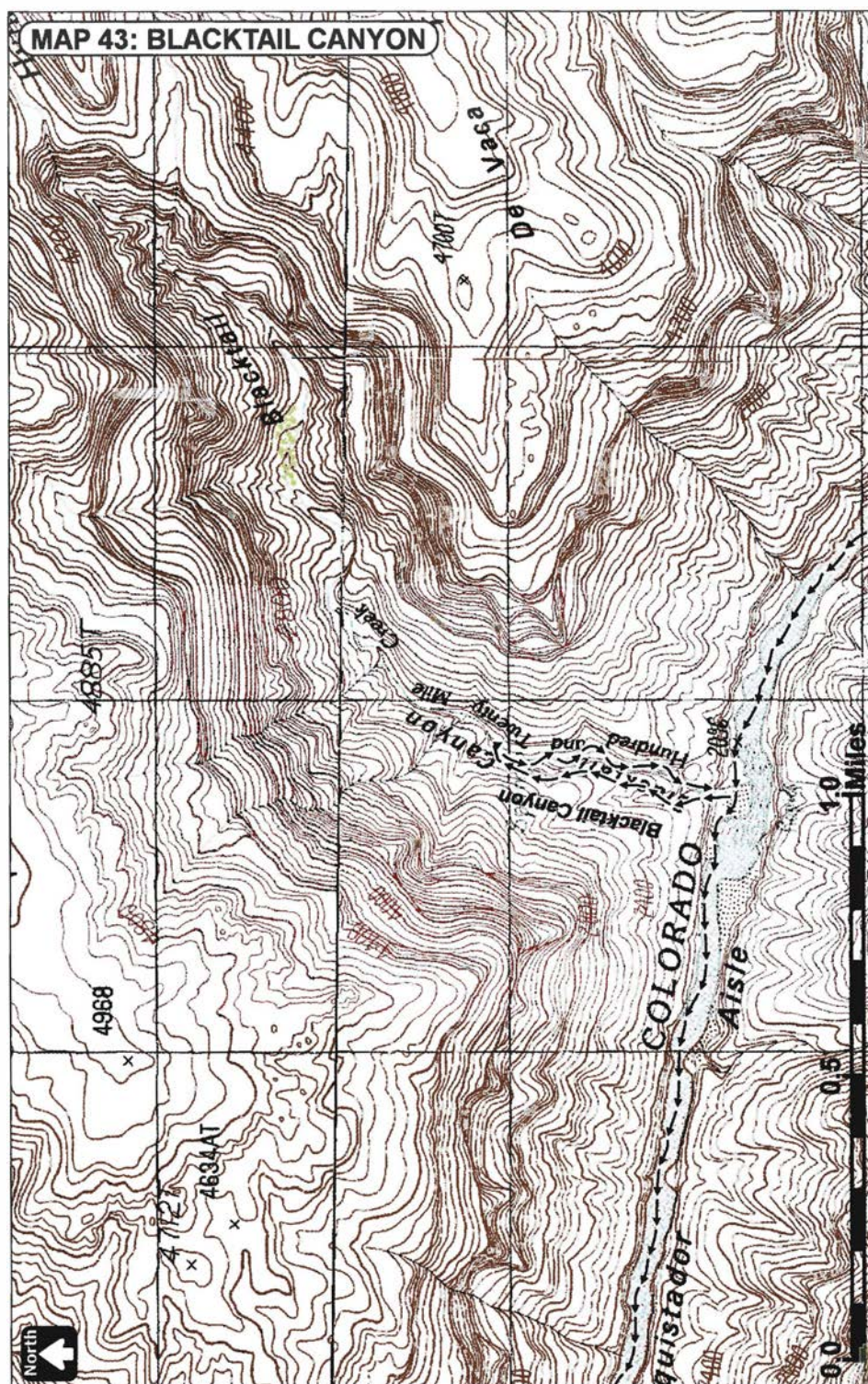
Leaving Blacktail, enter the river below the rapids on the right. Not far below Blacktail you'll want to portage the un-named rapids located just upriver from Hundred and Twentytwo Mile Creek on the left, then portage Forster Rapids (again on the left) a short time later. A few miles downriver, Fossil Rapids should be portaged on the left but you'll be forced into the water at the tail end of the wave train when the boulder covered embankment becomes too difficult to hike. Not far below Fossil you'll probably want to portage an un-named rapid formed by cliffs that pinch the river into a constriction by climbing onto a bench on the right. The route is a bit tricky since you'll first have to climb up above the riverside cliffs, and then back down again at a break in the cliffs to re-enter the river.

The river slows into a lazy and calm straightaway for quite some time before eventually hitting some riffles followed by Spector Rapids, which should be portaged on the left, and then Bedrock Rapids (portage on the right). Another mile will bring you to Deubendorff Rapids where you'll want to exit the river on the right at one of the beaches above the rapids.

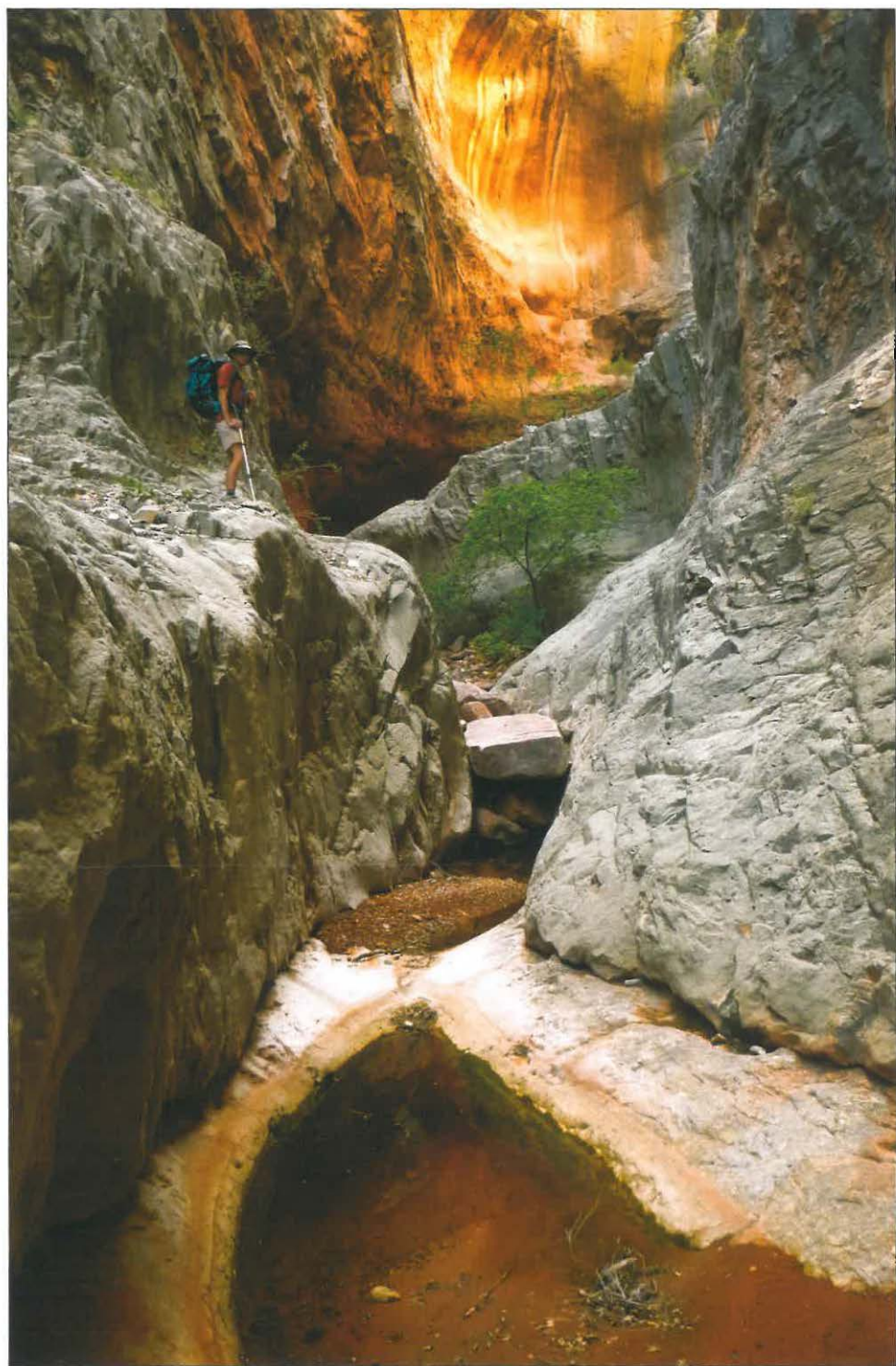
#### *AUTHOR'S RATING ★★★★★*

Blacktail is a good one. It's a shame the approach described above is only available to the river runners. Another possible option to access Blacktail would be from the mouth of Royal Arch Creek. One could packraft 3 miles to Blacktail from this point and, on the return, cross the river and walk back to Elves Chasm on river left.









*Saddle Canyon (Photo by Rich Rudow)*

## 44: Crazy Jug, Saddle and Stina Canyons

**OVERVIEW:** A remote technical canyoneering trip through the fairly scenic drainages of Crazy Jug and Saddle Canyons and the rather less scenic Stina Canyon. Crazy Jug and Saddle may also be completed as a non-technical backpacking trip. Along the way, you'll pass an old cowboy camp and the wreckage of a small aircraft.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AU9

**REQUIRED GEAR:** For the technical trip, bring 2x100' ropes, 50' webbing, 9 rap rings, harness, descender, helmet, carabiners, and drybag.

**SPECIAL CONSIDERATIONS:** Water is available in lower Crazy Jug Canyon, in pools in Saddle Canyon, and in upper and lower Stina Canyon. Intermittent water may be available where the trail crosses Crazy Jug Spring and just south of the cowboy camp on the Supai. These canyons require good natural anchor skills. All members of the group should possess good climbing skills. Camping gear must be kept dry through the pools in the canyons. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 17.5 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 7,160 – 3,890 ft.

**Time Needed:** 3 – 5 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Tapeats Amphitheater, Powell Plateau, King Arthur Castle 7.5

**Navigation:** Difficult

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A and drive to Jacob Lake. Travel south on Highway 67 for ¼ mile then turn right on Forest Road (FR) #461 towards the RV Campground. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Drive 3.2 miles to the intersection with FR #22 and turn left. Continue on FR #22 for 11.7 miles then turn right on FR #425 heading towards Crazy Jug Point and Monument Point. Follow FR #425 10.4 miles and turn right on FR #292 traveling towards Crazy Jug Point, then immediately turn left onto the considerably less traveled FR #292C. After 0.5 miles, where the road bends right look for a faint and unsigned track that leads up a small hill to the left. Turn left and drive a few hundred feet to park next to a small campsite at UTM: 12S 375363 mE, 4033229 mN WGS84 Datum.

### TRIP DESCRIPTION

**ENTRANCE:** From the car park, walk east along the rim a few hundred yards to an area where a number of small trees have been felled to locate the start of the Crazy Jug Trail at UTM: 12S 375530 mE, 4033284 mN WGS84 Datum. The path is in very good condition in the upper reaches and easy to follow as it contours east through the Kaibab and Toroweap layers, then switchbacks steeply south through the Coconino Sandstone (which



is fairly thin in the area). Once past the Coconino, the trail descends through the Hermit Shale via a long slope covered with Pinyon pine and Manzanita. About an hour from the trailhead, the path crosses a small (perennial?) stream fed by Crazy Jug Spring at UTM: 12S 375967 mE, 4032002 mN WGS84 Datum.

The trail becomes brushy and faint below the spring before soon disappearing altogether. The best route to follow lies along the rim of Crazy Jug Canyon (which will be on your right), choosing the path of least resistance through the scrub. Upon reaching the Supai, the terrain becomes more level. Those looking for a campsite or place to take a break out of the sun will find an old cowboy camp under a Supai ledge at UTM: 12S 375688 mE, 4031142 mN WGS84 Datum. An intermittent spring may be found a short distance south of the camp in an area overgrown by cattails. When ready, continue south from the cowboy camp around a minor un-named drainage to arrive at the rim of Parissawampitts Canyon, which stretches from east to west. Hike to the right (west) along the rim a short distance to locate and descend an obvious ridge that separates Parissawampitts from Crazy Jug Canyon. As you near the bottom, leave the ridge to the right and work your way down into the dry wash of Crazy Jug near UTM: 12S 375106 mE, 4030065 mN WGS84 Datum.

**CRAZY JUG CANYON:** Hiking down the rocky wash of Crazy Jug, you'll soon pass the mouth of Parissawampitts (there may be a small pool at the base of a pour-off a short way up this canyon). A short distance below Parissawampitts you'll pass through a scenic section of Redwall narrows dotted with Redbud trees.

**Bypass:** Those who wish to avoid the technical section of the canyon can do so via a rather unpleasant brushy bypass, which begins at GPS Point - UTM: 12S 375249 mE, 4028845 mN, WGS84 Datum. This is the same route that will be used on the way out to exit the canyon. The bypass climbs steeply up one of the minor gullies on the right side of the canyon to gain a gently sloped, scrub-filled plateau. From this point, choose the route of least resistance southwards through the thick brush to a small promontory. Scan the area to the left (east) of the promontory to locate a moderately distinct trail marked by cairns that travels down a steep and rocky ridge before swinging left (north) to eventually re-enter Crazy Jug Canyon at a point just below Timp Canyon.

**Technical Canyon:** Continue hiking down canyon to soon arrive at a double drop (each into a shallow pool) totaling 55 feet in length using a pinch point at the top as an anchor. A short distance below this obstacle, you'll encounter the wreckage of a Piper Cub that crashed in 1985 after clipping a wing tip on a cliff face above before falling into the canyon and killing the 2 people on board. The canyon then passes through moderately nice narrows before arriving at the Muav Limestone, which begins with a 15-foot downclimb of a narrow crack followed by a 25-foot rappel into a water-filled hallway. We rigged this rappel by looping rope around a smooth boulder at the top and flicking it off once everyone was down. If you use this anchor, you'll want to back it up for all but the last member of the group to make sure the rope doesn't accidentally slip over the top of the rock. After stemming or wading through the hallway, you'll reach a double drop that good climbers will be

able to get down without rope. Alternatively, the drop can be completed as a 35-foot rappel using a rock wedged in a crack on the right as an anchor. The next rappel is 25 feet in length using a rock wedged under a shelf on the right and the final rappel, which lies just beyond, is 15 feet long using a very small rock wedged in a pinch point at the top.

After pulling the rope, remove your harness and continue hiking down canyon. Water soon appears underfoot and you'll pass Timp Canyon, which enters from the left and featured a nice stream flowing from its mouth when I was here. If water is flowing, it's worth a short side trip up this canyon to view a pleasant series of colorful waterfalls (the last of which will block farther progress). A short distance below Timp, the canyon passes through a short, but stunning, section of layered Muav narrows, which feature some inviting and flat ledges for those looking for a camping spot. Good climbers will be able to negotiate the narrows with little difficulty. Those who do not wish to climb can pick up a bypass trail on canyon left that leads around this section. The canyon becomes wide below and soon passes an un-named canyon that enters from the left before arriving at the intersection with the much larger drainage of Saddle Canyon, which also enters from the left.

**SADDLE CANYON:** Rock-hop up Saddle Canyon for about 0.5 miles to where the canyon forks. Stina Canyon enters from the left while Saddle continues to the right (*Note: all directions in Saddle will be described facing up canyon*). Remain to the right and hike up canyon a short distance to identify a large rockslide located on the right hand side. Climb straight up this slide to where it ends in a cliff band, and then begin working your way up canyon against the cliff to bypass a large dryfall.

A few chutes and pools are found in the Muav above the dryfall, which require some climbing and maybe a short wade to negotiate. Soon, you'll enter the Redwall and a short section of narrows blocked by a chockstone and dryfall. Backtrack a short distance from the chockstone and climb up on the left to gain a bench that can be followed up and around the fall to a point where you can work your way back down into the canyon bottom with some exposure and the assistance of a tree (passing packs is recommended). Farther up canyon you'll encounter another set of narrows and dryfalls, which may also be bypassed on the left. Just before exiting the Redwall, you'll pass through a short but deep and scenic section of narrows, which end in another chockstone and dryfall. Experienced climbers can scale the chockstone, otherwise retreat a short distance around the corner to climb a vertical wall with good hand holds. Those with less experience can retreat further down canyon to a small drainage on canyon left. A short distance up this drainage a trail climbs up and out on the left then returns to the wash above the chockstone. The Redwall and scenery ends just above this obstacle. From this point you can either contour the top of the Redwall to the head of Stina Canyon, or return the way you came.

**STINA CANYON:** From the top of the Redwall in Saddle Canyon, climb up and out of the canyon on the left (east) to gain the top of the Redwall. To get to Stina Canyon, you'll turn left (north) to follow the brushy, rugged and thoroughly unpleasant slope above Saddle Canyon to a point above where the two canyons join. Turn right (east) from this spot and continue to push through the tangle of mesquite, scrub oak and yucca following

the rim (now above Stina Canyon) to the head of the Redwall at a point where you may enter the drainage. The good news, for those that have endured this miserable bushwhack, is that a cool and pleasant stream may be found in the upper portion of the Stina Redwall. The bad news is that you've probably had glimpses of the bottom of Stina from the rim, which reveal it for what it is, a largely uninteresting defile.

After cooling off in the stream, travel downcanyon a short distance to the first rappel, which is 45 feet in length from a pinch point at the top of the drop into a waist-deep pool. The second rappel is found just below and is 80 feet in length from a sling around a boulder in the streambed. After this initial semi-excitement, the water soon disappears underground and the canyon devolves into a dull and brushy rock-hop for the bulk of its length in the Redwall. The ugliness is eventually relieved, to some extent, with the arrival of the Muav and a final series of rappels to complete the canyon. At the first of these, you'll downclimb to the top of a pool, then rig a sling from a rock wedged behind a crack on the right to complete a 55-foot rappel. The final drop lies just below and is 65 feet in length from a rock wedged under a shelf at the top of the drop. After retrieving your rope and removing your harness, a short stroll below will bring you the confluence with Saddle Canyon and not long thereafter to the junction with Crazy Jug. Remain to the right at each of these junctions and begin your ascent of Crazy Jug.

**EXIT:** The exit largely involves retracing your steps back up and out of the canyon along the same path on which you had entered, except that a bypass is required in order to get around the technical section of Crazy Jug. The bypass may be found a short distance above the Muav narrows and below Timp Canyon at UTM: 12S 375421 mE, 4027913 mN WGS84 Datum. Climb up the rocky talus slope on the west side of the canyon at this point working your way in a southwards direction to gain a ridge marked by a small pinnacle and cairned path that begins at UTM: 12S 375476 mE, 4027769 mN WGS84 Datum. The trail travels steeply up the ridge to eventually gain a flat, scrub-filled plateau where it then fades into the brush. Choose the route of least resistance northwards through the scrub to reach one of a number of minor gullies above the canyon near UTM: 12S 375080 mE, 4028842 mN WGS84 Datum. Descend a gully to eventually re-enter Crazy Jug Canyon at GPS Point - UTM: 12S 375249 mE, 4028845 mN, WGS84 Datum. Continue upcanyon, retracing the route described above to the rim and your vehicle.

### ***AUTHOR'S RATING***

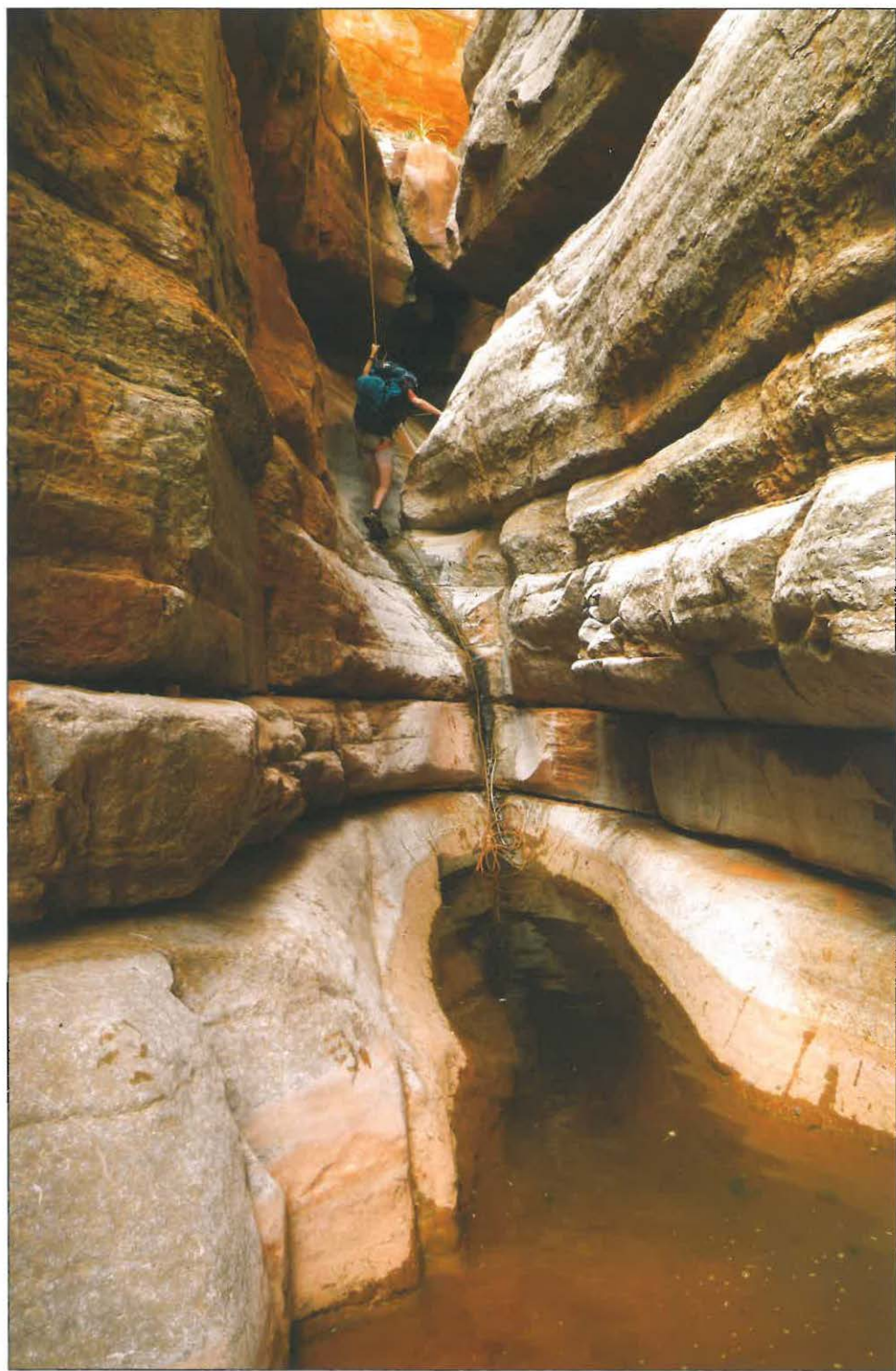
**Crazy Jug and Saddle Canyons: ★★★**

**Stina Canyon: ★★**

Chris Forsyth accompanied Aaron Locander, Rich Rudow and I, showing us the Crazy Jug entry route (which I must have taken for granted since I raced ahead on the exit and wound up becoming completely disoriented). The lesson there is probably to be attentive when someone else is leading, and perhaps not to race ahead (patience has never been one of my virtues). In the end, and after an extended wrestling match with a series of brushy opponents, I was forced to retrace my steps to pick up the exit trail, eventually topping out 2 hours after the rest of the party.

At any rate, Crazy Jug turned out to be a pleasant surprise, being more scenic than any of us expected. The same is not to be said of Stina, which we had very high hopes for, nearly all of which were misplaced.





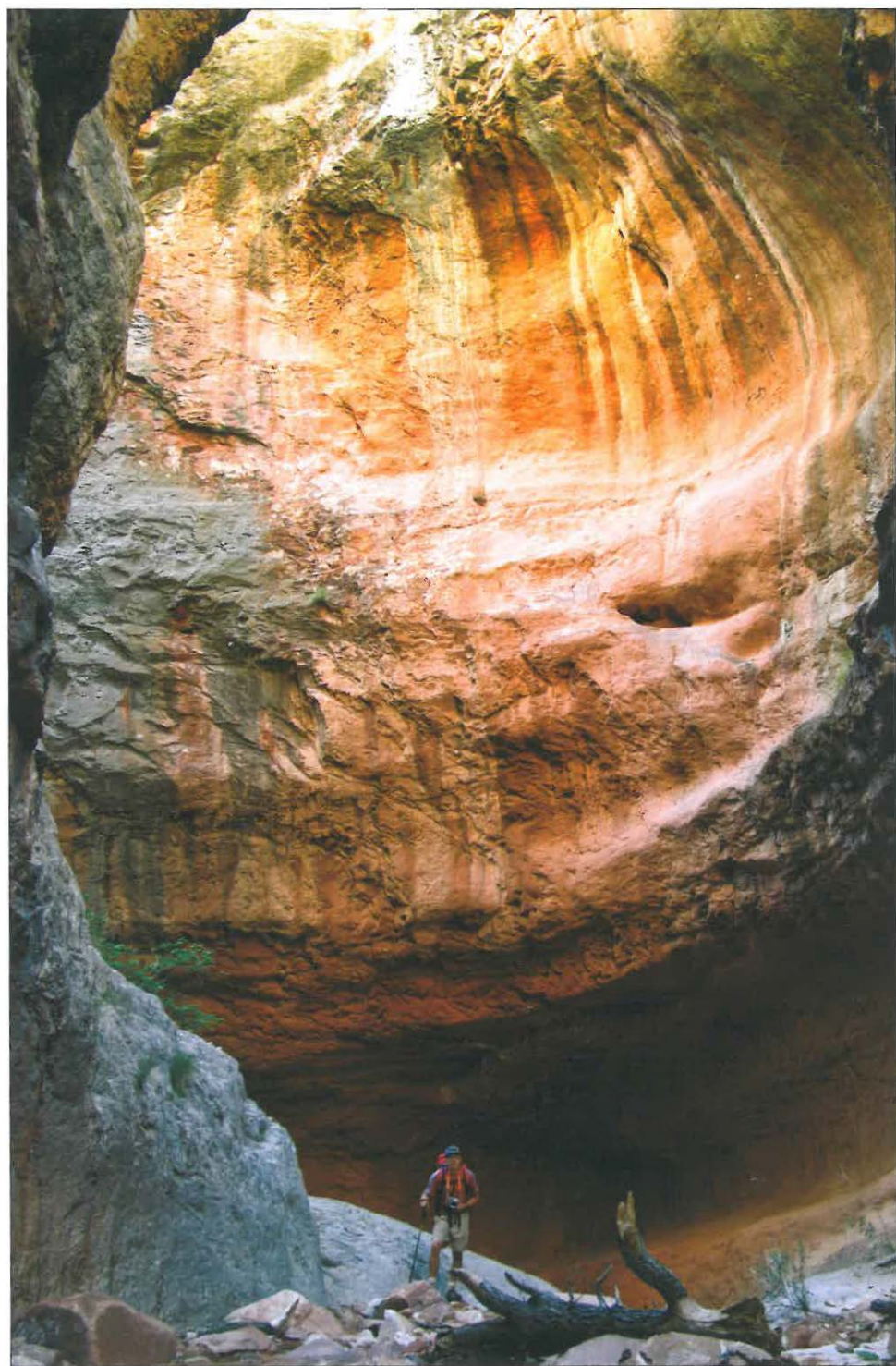
*Crazy Jug Canyon (Photo by Rich Rudlow)*



MAP 44: CRAZY JUG, SADDLE &amp; STINA CANYONS

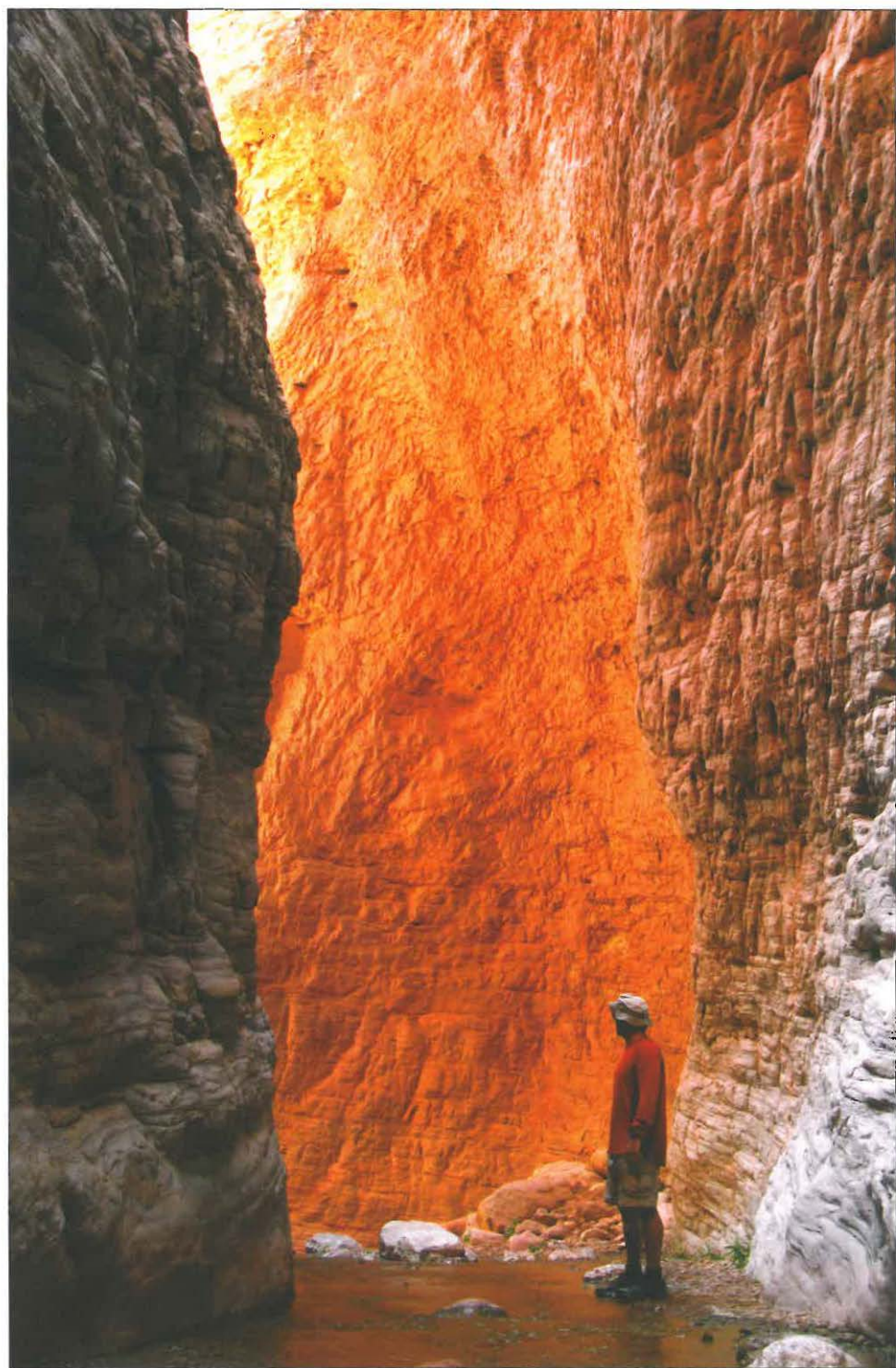






*Redwall Narrows of Saddle Canyon*





*Stone Creek narrows*

## 45: Stone Creek

**OVERVIEW:** Stone Creek is located on the North Rim a few miles upriver from Tapeats Creek and features several scenic waterfalls fed by a perennial stream. The canyon can be done as either a backpacking or technical canyoneering trip beginning at either Monument or Swamp Points (be aware that the latter is a thoroughly unpleasant hack-fest).

**LOCATION:** Grand Canyon National Park. North Rim. Use areas: AU9, AV9, AW9, AM9, AY9

**REQUIRED GEAR:** 2x150' ropes, 20' webbing, 2 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction.

**SPECIAL CONSIDERATIONS:** From Monument Point, water is available at Thunder River, in Tapeats Creek, in Stone Creek and at the Colorado River. From Swamp Point, water may be found in potholes in Saddle Canyon, at Crazy Jug Canyon, and in Tapeats Creek below the confluence with Tapeats Cave Canyon. Stone Creek requires good natural anchor skills. Tapeats Creek is impassible during spring runoff and after heavy rains. Do not attempt this hike when the creek is running high. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 31.5 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 7,500 – 1,990 ft.

**Time Needed:** 3 – 6 days

**Best Time of Year:** Summer, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS King Arthur Castle, Tapeats Amphitheater, Powell Plateau, 7.5

**Navigation:** Moderate to Difficult

### DRIVING DIRECTIONS

**MONUMENT POINT:** There are many ways to drive to Monument Point, this is one option: Take Highway 89A to its intersection with State Highway 67 at Jacob Lake. Travel south on Highway 67 for ¼ mile then turn right on Forest Road (FR) #461 towards the RV Campground and Vista Points. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Drive 3.2 miles to the intersection with FR #22 and turn left. Continue on FR #22 for 11.7 miles then turn right on FR #425 heading towards Crazy Jug Point and Monument Point. Follow FR #425 10.4 miles and turn right on FR #292 heading towards Crazy Jug Point, then stay straight 1.3 miles later at a 4-way intersection on FR #292A. The road ends 1.6 miles later at the parking area for Monument Point.

**SWAMP POINT:** From Flagstaff, drive north on Highway 89. Turn left on Highway 89A and drive to Jacob Lake. Travel south on Highway 67 for about 25.5 miles to the signed turnoff for Forest Road 22, located just past the Demotte Campground and mile marker 605. Zero your odometer and turn right onto FR 22 (which is dirt but well graded) heading west towards “Fredonia” and “Viewpoints”. After 2 miles, turn left onto FR 270 towards Fire Point. At mile 4.3 head right onto FR 223 and follow it to the 10.1-mile point to turn left onto

FR 268. At the 10.4-mile point, the road forks, stay to the left on FR 268B and you'll soon enter GCNP at mile 11.6. At the 11.8-mile point, stay right at the sign for Kanabownits (with a backwards "K"). Follow this road about 8 miles to its end at Swamp Point and park.

### *TRIP DESCRIPTION*

**MONUMENT POINT TO UPPER TAPEATS CAMP:** From the parking area, follow the Bill Hall Trail as it follows the rim to the southwest a short distance and climbs to Monument Point. The path then descends steeply through the Kaibab Limestone to the south with views of Bridgers Knoll then bends to the northwest to travel on top of the Coconino Sandstone at a more level grade. The path turns to the southwest at a break in the Coconino to descend steeply down into the canyon to arrive at the Esplanade bench (a wide flat area consisting of red Supai sandstone) and signed junction with the Thunder River Trail. Turn left (south) onto the Thunder River Trail.

The path remains flat as it winds along the Esplanade for several miles. There are long stretches where there is no visible trail (since it travels over slickrock sandstone much of the way), however, cairns have been placed at frequent intervals making route-finding an easy task. Eventually the trail curves towards the main canyon where it drops steeply off the Esplanade through the Supai and Redwall Limestone formations into a hot, desolate and shadeless area called Surprise Valley. Just as you reach Surprise Valley, you will come to an unsigned junction with the right branching Deer Creek Trail. Remain to the left at the junction and follow the path as it travels down a slope to arrive at a right branching spur trail, which is used by hikers traveling from Tapeats to Deer Creek (or vice versa). Remain to the left once again to soon pass a nice, but waterless, campsite on the right (south) at the head of Bonita Creek at GPS Point - UTM: 12S 367750 mE, 4028863 mN WGS84 Datum.

Continue east as the trail winds across the floor of Surprise Valley, crossing shallow drainages and low hills to a point overlooking Thunder River. The path then descends steeply along a series of switchbacks to a spur trail on the left that leads up to the falls. After a detour to view the falls close-up, continue down along the trail as it descends beside the stream to eventually arrive at Tapeats Creek and the Upper Tapeats Campsites. Look for the trail to cross the creek a short distance below the camp.

**SWAMP POINT TO UPPER TAPEATS CAMP:** From Swamp Point, the trail begins at the sign and descends a series of switchbacks to a 4-way intersection at Muav Saddle. The left hand branch is the North Bass Trail, which descends into Muav Canyon and White Creek, while straight continues west to Powell Plateau. We'll turn right, following a path as it descends a short distance to an old patrol cabin. Continuing down past the cabin, the trail disappears and the route degrades into a thicket of oak, locust and thorn bushes. The bed of the shallow drainage usually provides the route of least resistance, though it is also horribly overgrown. After several hours of struggling through the underbrush, the scrub begins to abate as you enter the Supai Sandstone in upper Saddle Canyon. Hiking through the Supai, there are two small pour-offs that must be bypassed, the first on the left, and the second on the right.

Lest you think the worst is over, it is not. The second round of bushwhacking begins where the Supai drops precipitously in a series of pour-offs. With the way forward blocked, look for a sparsely cairned route that exits the creekbed on the left to contour along the side of a prominent ridge. Thrash your way along the side of the ridge for some distance, gaining elevation as you do so, until you reach a point where a short climb will bring you to the ridge's spine. Follow the cairns along ridgeline as it descends to the northwest,



scanning the left side of the ridge to identify a steep, talus slope that may be descended to arrive at the bottom of a tributary drainage of Saddle Canyon. Once down, follow this dry wash north to soon intersect the main arm of the canyon. In case you were wondering, the worst is now over (unless you happen to be going back out the same way).

You are now at the top of the Redwall in Saddle Canyon. The next task is to descend Saddle the remainder of the way to its junction with Crazy Jug by reversing the route described in Hike #44 for Crazy Jug, Saddle and Stina Canyons. The route begins with a bypass of a pour-off via a minor use trail on the left.

Reliable water may be found at the Saddle/Crazy Jug confluence from a small, perennial stream that emanates from Crazy Jug Canyon. The stream persists in the combined drainages for some distance, but during the drier months eventually disappears underground. Approximately 3 miles below the Saddle/Crazy Jug confluence you'll arrive at the junction with Tapeats Cave Canyon, which enters from the right and features a clear, gushing, ice-cold stream. Before proceeding downcanyon be sure to evaluate the flow to make sure it is low enough to safely hike in the stream. During spring runoff and after heavy rains the flow becomes a raging torrent making travel risky or impossible. If all looks well, travel downcanyon on the left along a high bench above the creek. Eventually, the bench pinches off, and you're forced to downclimb a 15-foot cliff near a conveniently located cottonwood tree. Continue downcanyon on one side of the watercourse or the other, crossing and hiking in the creek where necessary and making use of benches where available. After about 1.5 miles you'll arrive at the Upper Tapeats Campsites and the Thunder River Trail, both of which are found on the right-hand side of the creek.

**UPPER TAPEATS CAMP TO STONE CREEK:** Continuing down Tapeats Creek on the left side of the stream, a well defined trail appears underfoot and the walking becomes considerably easier. After hiking about a mile and a half, the trail climbs up and out of the streambed to the left to begin traveling high above the creek on the eastern side of the drainage. At a point above the mouth of Tapeats Canyon, the trail fades as the route bends in a more southerly direction to travel along the schist bench above the river for 2.5 miles until eventually dropping down into the drainage of Stone Creek, which features a perennial stream. Good campsites may be found on the beach just downriver from the mouth of the canyon and can be reached via a trail that descends steeply down a series of basalt cliffs on the left side of the drainage.

**STONE CREEK:** The canyon is best done as a day hike, but if you leave any food at the beach, be sure to secure it from the predations of rodents, ringtails and ravens. From the mouth of Stone Creek, hike up the creekbed a short distance to a scenic waterfall that blocks further progress, but makes for an excellent shower on a hot summer day. Backtrack a short distance from the falls to pick up a cairned path on canyon left that climbs steeply up the basalt cliffs to bypass two waterfalls. The track returns to the creekbed and soon passes the junction with the route you had followed on the way in from Tapeats Creek. Follow the stream upcanyon along a moderately worn trail, crossing and re-crossing the creek as necessary. The route passes several nice waterfalls and pools that make excellent spots for a short break. About 2 miles from the river the drainage enters a narrow box canyon that soon ends in a beautiful mossy waterfall.

This is the turnaround point for those without ropes. Those who wish to rappel the falls can do so by backtracking  $\frac{1}{4}$  mile to identify a steep rock-covered slope on creek left. Climb straight up the slope to the rim of the rock layer that forms the slot then contour the hillside

above heading northeast until you reach a point where it is possible to climb back down into the drainage above the narrows. Two rappels are required to get through the canyon. The first is a double drop totaling 120 feet in length from a pinch point formed by boulders at the top. The second rappel is 70 feet long and may also be rigged from pinch point at the top. Be considerate to those that follow and keep the webbing short enough that it cannot be seen from below. After retrieving the rope, remove your harness and return the way you came.

## ***AUTHOR'S RATING* ★★★★★**

Rich Rudow, Albert Putzig and I accessed the canyon on a 5-day circum-floatation packrafting trip of Powell Plateau. After exploring Stone Creek we hiked out to Swamp Point using the brushy route described above (not recommended).



*The second and final rappel in Stone Creek*



## MAP 45: STONE CREEK







*The 450-foot rappel in Tapeats Cave Canyon*

## 46: Tapeats Cave Canyon

**OVERVIEW:** The shortest route to Tapeats Cave and Spring is straight down from the rim. All that stands in the way is a short canyon ending in a dramatic 675-foot drop, making the trip best suited to experienced technical canyoneers.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AV9, AW8, AW7, AM9, AY9

**REQUIRED GEAR:** 1x500' rope, 2x250' ropes, 70' webbing, 7 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit may be required after rains or during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available in Tapeats Cave Canyon, in Tapeats Creek below the spring and at Thunder River. This canyon requires good natural anchor skills and the ability to negotiate a large 2-stage rappel. An early start is strongly recommended, it will take longer than you think to get through the technical portion of the canyon. Camping gear must be kept dry through the pools in this canyon. Tapeats Creek is impassible during spring runoff and after heavy rains. Do not attempt this hike when the creek is running high. This hike requires a permit from the National Park Service.



**ACA Rating:** 4B R VI

**Distance:** 13.9 miles

**Physical Difficulty:** Strenuous

**Elevation:** 7,250 – 2,500 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Fall

**Vehicle:** Passenger Car if roads are dry

**Car Shuttle:** No

**Maps:** USGS Tapeats Amphitheater 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

Tapeats Cave Canyon is located on the North Rim of the Grand Canyon and is accessed from the road to Monument Point. There are many ways to drive to Monument Point, this is one option: Take Highway 89A to its intersection with State Highway 67 at Jacob Lake. Travel south on Highway 67 for ¼ mile then turn right on Forest Road (FR) #461 towards the RV Campground and Vista Points. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Drive 3.2 miles to the intersection with FR #22 and turn left. Continue on FR #22 for 11.7 miles then turn right on FR #425 heading towards Crazy Jug Point and Monument Point. Follow FR #425 10.4 miles and turn right on FR #292 heading towards Crazy Jug Point, then stay straight 1.3 miles later at a 4-way intersection on FR #292A. Drive 0.4 miles and park in a pull out on the right (north) side of the road at UTM: 12S 373600 mE, 4032807 mN WGS84 Datum.

### TRIP DESCRIPTION

From the car park, walk across the road to the south and push through the brush to the canyon rim and head straight down the steep, loose and treacherous talus slope through the upper limestone layers. At the Coconino you'll be stopped by a cliffband. Traverse to the right (northwest) along the slope to identify a large cairn located on a small promontory

that marks a break in the cliffband at UTM: 12S 373179 mE, 4032705 mN WGS84 Datum. Descend the sheer gully just to the west of the cairn and promontory through the Coconino to gain the slope below, then choose the route of least resistance down the remainder of the talus slope to arrive at the Esplanade and the top of the Supai Sandstone. Contour west along the Supai to enter one of the arms of Tapeats Cave Canyon (we entered at UTM: 12S 372026 mE, 4031959 mN WGS84 Datum).

There are a few downclimbs in the Supai as well as one bypass on the left to avoid two pour-offs, but otherwise no major obstacles are encountered. Entering the Redwall, you'll soon encounter some pools (at least one of which requires a deep wade or short swim) and the first rappel, a double drop totaling 100 feet in length using a pinch point on the right at the top of the drop (resulting in a very awkward start, but a clean pull). The second rappel is 40 feet in length using a pinch point on the left a short distance back from the edge of the drop and features an awkward overhung lip. The next rappel is 45 feet long using a small tree on canyon left as an anchor. After wading through a shallow pool you'll arrive at a double drop totaling 50 feet in length (each into pools) that may be descended using webbing threaded through dissolution holes on the right. After rounding a corner you'll encounter another 10-foot nuisance drop (use a pinch point at the top for an anchor) before arriving at the big rappel.

The big drop is 675 feet in length, but may be completed in two stages. The first stage is exactly 450 feet long (all but the first 40 feet of which is free-hanging) from two bolts and hangers on the left to arrive at a rocky shelf. The second stage is 225 feet in length using webbing around a large block located on a ledge on the left side of the shelf. A few tips for those attempting this rappel:

- Each member of the group should be capable of adding and removing friction on the fly. As is typical of drops of this size, there will be quite a bit of natural resistance at the top of the drop due to the weight of the rope below you. As you descend, the rappel becomes faster and friction will need to be added in order to remain in control of your descent rate. Rappelling should be done in a smooth and controlled manner to avoid bouncing and rope abrasion.
- Reset the rope between each rappel to avoid abrasion in any one spot (this is why I am recommending a 500-foot rope for this drop).
- After the first person is down, they should be prepared to apply a fireman's belay for those that follow.
- Once the rope used for the pull is deployed, care must be taken to keep it clear from those rappelling to prevent entanglement in case they should spin on the way down.
- The best place to pull the rope is from a ledge located above and to the right of the rocky shelf. The climb up to the ledge is easy, but be aware that it is covered with loose boulders making rockfall a real danger. It would be best to get everyone in the party over to the large block on the left that will be used as the anchor for the second stage of the rappel before climbing on the right-hand ledge.

Once down and the rope retrieved, remove your harness and hike downcanyon through the Muav Limestone, downclimbing where necessary to descend some minor pour-offs. Just above the point where water begins to flow, work your way over to the left side of the canyon to locate Tapeats Cave. Caves are yet another resource tightly regulated by the Park Service and almost all are off limits to recreational travel. Check with the Backcountry Office as to whether entry into Tapeats Cave is permitted. If so, those with some time on their hands may



want to spend some time exploring the cave; just be prepared for wet conditions.

At the mouth of Tapeats Cave, pick up a hiker's trail that may be followed the remainder of the way downcanyon to the junction with the main arm of Tapeats Creek. Turn right and continue downcanyon on the left along a high bench above the creek. Eventually, the bench pinches off, and you're forced to downclimb a 15-foot cliff near a conveniently located cottonwood tree. Continue downcanyon on one side of the watercourse or the other, crossing and hiking in the creek where necessary and making use of benches where available. After about 1.5 miles you'll arrive at the Upper Tapeats Campsites and the Thunder River Trail, both of which are found on the right hand side of the creek.

Turn right onto the Thunder River Trail and begin climbing steeply to eventually reach Thunder Spring, a torrential series of waterfalls that gush from caves in the face of the Redwall cliff. After a detour to view the falls close-up, continue up along the trail as it climbs steeply along a series of switchbacks into Surprise Valley. The trail winds west across the floor of Surprise Valley, crossing shallow drainages and low hills for about a mile before arriving at an unsigned junction at Bonita Creek and the trail to Monument Point. Turn right, remaining on the Thunder River trail (left will take you to Deer Creek) and climb steeply through the Redwall Limestone and Supai formations to eventually reach the Esplanade. The trail becomes level as it winds along the Esplanade for several miles. There are long stretches where there is no visible trail since it travels over slickrock sandstone much of the way; however, cairns have been placed at frequent intervals making route-finding a fairly easy task.

After several miles of hiking you'll intersect a signed junction with the Bill Hall trail. Turn right and follow the Bill Hall trail for 2.6 miles up and out of the canyon to the rim and trailhead. Another mile's walk along the road to the east will bring you back to your vehicle.

## *AUTHOR'S RATING* ★★★

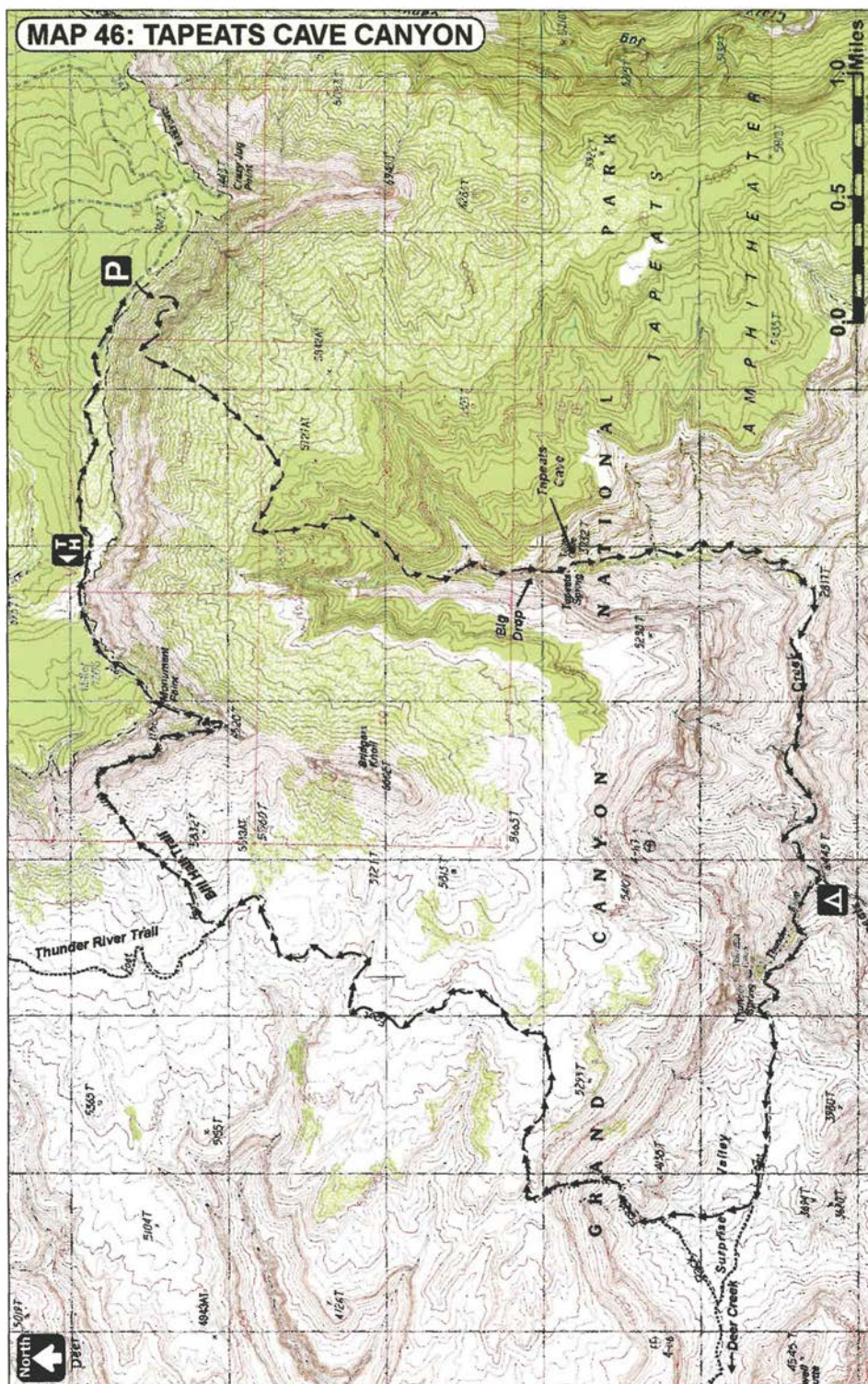
Though more of a stunt than a practical route, the dramatic elevation change will provide some excitement for even the most jaded of canyon hikers.



*Tapeats Creek*



# CENTRAL GRAND CANYON



## 47: Bonita Creek

**OVERVIEW:** A rather wide and uninteresting canyon route to the river returning via Tapeats Creek and Thunder River.

**LOCATION:** Grand Canyon National Park. North Rim. Use areas: AY9, AM9, AW7, AW8

**REQUIRED GEAR:** 2x150' ropes, 40' webbing, 3 rap rings, harness, descender, helmet, carabiners, and shoes with good traction.

**SPECIAL CONSIDERATIONS:** Water is available at the Colorado River, Tapeats Creek and at Thunder River. This canyon requires good natural anchor skills. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 3A VI	<b>Distance:</b> 20 miles
<b>Physical Difficulty:</b> Very Strenuous	<b>Elevation:</b> 7,200 – 1,990 ft.
<b>Time Needed:</b> 2 – 4 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> Passenger Car if roads are dry	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Tapeats Amphitheater 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

Bonita Creek is located on the North Rim of the Grand Canyon and is most easily accessed from Monument Point via the Bill Hall trail. There are many ways to drive to Monument Point, this is one option: Take Highway 89A to its intersection with State Highway 67 at Jacob Lake. Travel south on Highway 67 for ¼ mile then turn right on Forest Road (FR) #461 towards the RV Campground and Vista Points. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Drive 3.2 miles to the intersection with FR #22 and turn left. Continue on FR #22 for 11.7 miles then turn right on FR #425 heading towards Crazy Jug Point and Monument Point. Follow FR #425 10.4 miles and turn right on FR #292 heading towards Crazy Jug Point, then stay straight 1.3 miles later at a 4-way intersection on FR #292A. The road ends 1.6 miles later at the parking area for Monument Point.

### TRIP DESCRIPTION

**APPROACH:** From the parking area, follow the Bill Hall Trail as it follows the rim a short distance and climbs to Monument Point. The path then descends steeply through the Kaibab Limestone to the south with views of Bridgers Knoll before bending to the northwest to travel on top of the Coconino Sandstone at a more level grade. The path turns to the southwest at a break in the Coconino to descend steeply down into the canyon to arrive at the Esplanade bench (a wide flat area consisting of red sandstone) and signed junction with the Thunder River Trail. The Park Service has made it a policy not to name landmarks for its employees, but made an exception for Mr. Hall who was killed in the line of duty as a seasonal park ranger on the North Rim.



At the Esplanade bench, the Bill Hall Trail intersects the Thunder River Trail; turn left at the junction. The trail remains flat as it winds along the Esplanade for several miles. There are long stretches where there is no visible trail (since it travels over slickrock sandstone much of the way); however, cairns have been placed at frequent intervals making route-finding an easy task. Eventually, the trail curves towards the main canyon where it drops steeply off the Esplanade through the Supai and Redwall Limestone formations into a hot, desolate and shadeless area called Surprise Valley. Just as you reach Surprise Valley, you will come to an unsigned junction with the right branching Deer Creek Trail. Remain to the left at the junction and follow the path as it travels down a slope to arrive at a right branching spur trail, which is used by hikers traveling from Tapeats to Deer Creek (or vice versa). Remain to the left once again to soon pass a nice, but waterless, campsite on the right (south) at the head of Bonita Creek at GPS Point - UTM: 12S 367750 mE, 4028863 mN WGS84 Datum.

**BONITA CREEK CANYON:** Leave the trail to the right and walk down the dry, shallow wash as it travels between low hills. Eventually, you will arrive at a vertical cliff band that requires a rope to descend. The rappel is 40 feet in length and can be rigged from a chockstone wedged at the top of the drop. Continuing down canyon, you'll arrive at a series of pour-offs, the first may be bypassed via a series of ledges on the left. The second requires a 125-foot free hanging rappel with an overhung start that may be rigged from an obvious square block on the left a short distance back from the edge. Although it makes for an awkward start, it's probably a good idea to extend the webbing just over the lip of the drop to ensure the rope is easy to retrieve.

The canyon remains wide and uninteresting below the rappel, but there are no significant obstacles until you reach the Tapeats Sandstone, which features a moderately challenging downclimb, followed by a 40-foot rappel using a pinch point found in a vertical crack on the left. A bit lower, you'll encounter a jumbled pile of boulders with a short drop at the end. Good climbers may be able to get down without rope, but it's safer to sling a pinch point under a boulder just above the drop to complete a 15-foot rappel. More downclimbing on boulders will bring you to an area of black and crumbling rock that has the look and feel of a soot blackened kiln (particularly if the weather is hot). Soon thereafter, you'll arrive at a small spring that forms a few shallow pools in the lower portion of Bonita; the river lies a short distance beyond.

The next task is to hike upriver to the mouth of Tapeats Creek. In order to do this, you'll first have to locate, and then climb up along a faint trail that begins just outside the mouth of Bonita on the left. This route bypasses a cliff band that juts into the water a short distance upstream from Bonita Creek blocking travel along the riverbank. After climbing a short distance, the path travels along the hillside before descending steeply to regain the beach along the river. A short hike along the riverbank will bring you to Tapeats Creek, which is the first drainage that enters from the left and features a campsite on the sand on the left and a perennial stream.

**EXIT – TAPEATS CREEK:** Turn left to travel up Tapeats Creek. The path soon bends left and climbs steeply up the hillside before leveling out to eventually meet the

creek once again farther upstream. Continuing up beside the stream there are two routes to choose from. The easier lower route crosses the creek twice (west to east, then back again), but may be impassible during the spring or after periods of heavy rain when water levels are high. If such is the case, it is also possible to follow a path entirely on the west side of the stream, though this route is considerably more strenuous and requires several detours up and around creek-side obstacles on steep talus slopes.

Eventually, you'll arrive at the Upper Tapeats campsites, which are found approximately  $\frac{1}{4}$  mile below the confluence of Thunder River and Tapeats Creek on the west side of the stream. At the junction with Thunder River, the path bends left and begins climbing steeply to eventually reach Thunder Spring, a torrential series of waterfalls that gush from caves in the face of the Redwall cliff. After a detour to view the falls close-up, continue up along the trail as it climbs steeply along a series of switchbacks into Surprise Valley. The trail winds west across the floor of Surprise Valley, crossing shallow drainages and low hills for about a mile before arriving at an unsigned junction at Bonita Creek and the trail you had hiked in on earlier. Turn right and retrace your steps the remaining 7 miles to Monument Point and your vehicle.

#### *AUTHOR'S RATING Ø*

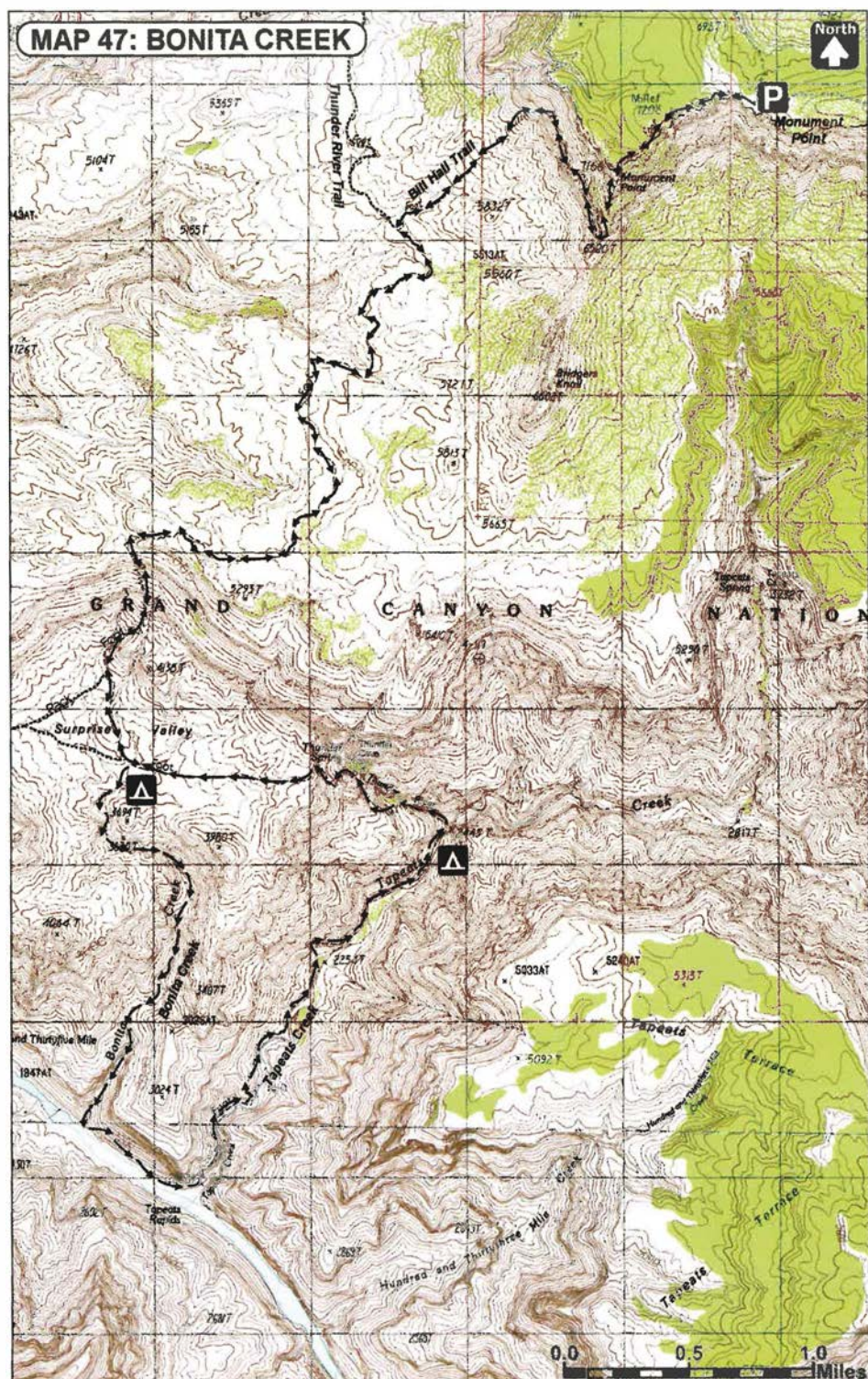
Although Bonita Creek is a deservedly no star canyon, the hike along Tapeats Creek and the waterfall at Thunder River almost makes up for the disappointment.



*Thunder River*



# CENTRAL GRAND CANYON





## 48: Deer Creek (upper)

**OVERVIEW:** This section describes the three upper arms of Deer Creek Canyon. Each of the arms is very different in character and each has its own rewards. The Middle Fork is a technical, wet canyoneering trip through deep, twisting narrows, while the Eastern Fork is basically a backpacking trip with two rappels and some climbing thrown in for good measure. The Western Fork is the shortest, and features a long rappel.

**LOCATION:** Grand Canyon National Park. North Rim. Use areas: AX9, AY9, AM9

**REQUIRED GEAR:** Harness, descender, helmet, carabiners, and the following gear: **Western Fork:** 2x250' ropes (minimum rope length!), 30' webbing, and 4 rap rings. **Middle Fork:** 1x200' rope (or 2x100' ropes), 70' webbing, 8 rap rings, drybags, wetsuit and pothole escape equipment. **Eastern Fork:** 2x100' ropes (or 1x100' rope – see trip description), 20' webbing and 2 rap rings.

**SPECIAL CONSIDERATIONS:** Water is available in the Middle Fork of Deer Creek Canyon and from the perennial springs in lower Deer Creek. Water may be available in potholes in the upper Eastern and Western Forks but should not be counted on. All members of the group should possess good climbing skills. **⚠️WARNING⚠️** The water in the Middle Fork of the canyon is very cold, wetsuits are necessary in all but the hottest weather; the canyon also contains a deep and potentially dangerous keeper pothole. Good natural anchor skills are required for the Middle and Western Forks. These hikes require a permit from the National Park Service. Because Deer Creek is a heavily used area and permits are issued on a first come, first served basis, applications need to be submitted far in advance of your trip.

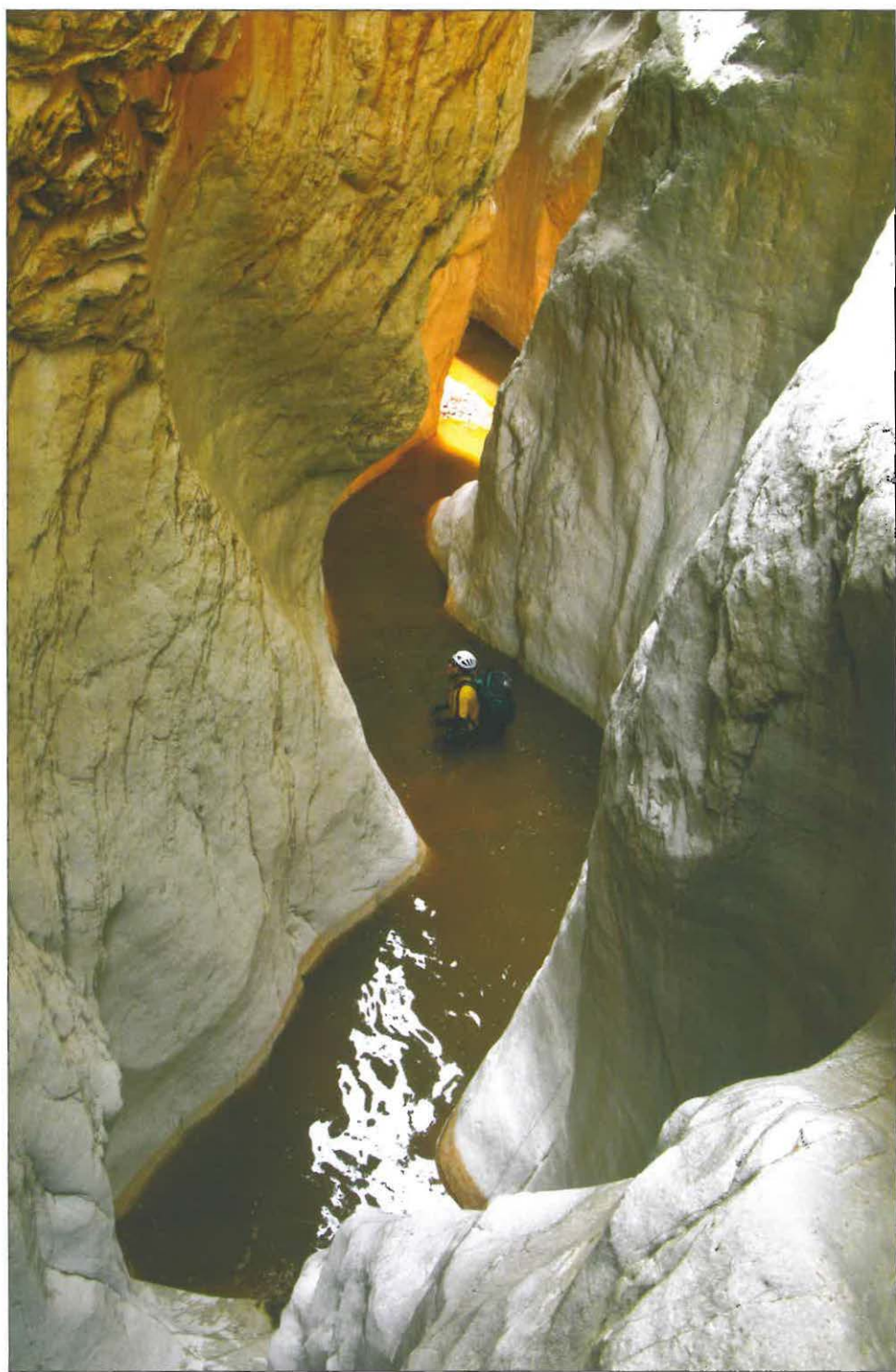


<b>ACA Rating:</b> 3B VI	<b>Distance:</b> 17.6 – 20.0 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 7,200 – 2,410 ft.
<b>Time Needed:</b> 2 – 4 days	<b>Best Time of Year:</b> Spring, Summer, Fall
<b>Vehicle:</b> Passenger Car if roads are dry	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Fishtail Mesa 7.5 (canyon), Tapeats Amphitheater 7.5 (trail)	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

Deer Creek is located on the North Rim of the Grand Canyon and is most easily accessed from Monument Point via the Bill Hall trail. There are many ways to drive to Monument Point, this is one option: Take Highway 89A to its intersection with State Highway 67 at Jacob Lake. Travel south on Highway 67 for ¼ mile then turn right on Forest Road (FR) #461 towards the RV Campground and Vista Points. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Drive 3.2 miles to the intersection with FR #22 and turn left. Continue on FR #22 for 11.7 miles then turn right on FR #425 heading towards Crazy Jug Point and Monument Point.

**INDIAN HOLLOW TRAILHEAD (USE FOR WESTERN FORK):** Follow FR #425 8.4 miles and turn right on FR #232 and follow it 5 miles to the Indian Hollow Campground and Trailhead.



*The Middle Fork of Upper Deer Creek Canyon*

**MONUMENT POINT TRAILHEAD (USE FOR MIDDLE AND EASTERN FORKS):** Follow FR #425 10.4 miles and turn right on FR #292 heading towards Crazy Jug Point, then stay straight 1.3 miles later at a 4-way intersection on FR #292A. The road ends 1.6 miles later at the parking area for Monument Point.

### *TRIP DESCRIPTION*

**WESTERN FORK:** From Indian Hollow, walk past the trailhead sign and take a quick walk through the woods to the edge of the Canyon. The Thunder River Trail drops a short distance before proceeding west along a ridge to a point where breakdown at a bend in the canyon wall allows you to make your descent through the Coconino Sandstone. The trail switchbacks steeply down to the Esplanade and then begins contouring to the east at a more level grade. Though I have not done this approach, the easiest way into the Western Fork of Deer Creek would be to follow the path to where it crosses the drainage at UTM: 12S 366614 mE, 4034562 mN WGS84 Datum. Depart the drainage and work your way down through the Supai to the Redwall narrows (I have not done the upper part of this route through the Supai).

I entered the canyon on a return from Fishtail Canyon via the Cranberry route and took a shortcut descending the drainage at UTM: 12S 364555 mE, 4033509 mN WGS84 Datum. There are no major obstacles along this route until you reach a large drop-off at the junction with the drainage that forms part of the Sinyella Fault. To get down into the canyon bottom, follow the rim left (east) a short distance to UTM: 12S 364987 mE, 4033091 mN WGS84 Datum. From this point, you'll be able to scope out a steep, but clear route down. Once in the canyon, a short walk will bring you into the Redwall narrows.

After wading a pool and downclimbing a six-foot chockstone (easiest on the left), you'll arrive at the first rappel, a 70-footer from a pinch point on the left into a beautiful alcove. Downclimb another chockstone (on the right) to arrive at rappel #2, which is 40 feet in length down a fluted wall from a pinch point on the right at the top of the drop. Next are two short nuisance drops of 10 and 15 feet respectively, which can be negotiated by canyoneers with good natural anchor skills by using a rock-chock in a limestone crack on the left. This brings you to the big rappel, which is 250 feet in length (minimum!) to a ledge 40 feet above the canyon floor from which it is possible to downclimb. The anchor for this rappel is a pinch point on the left at the top of the drop. Those with a 300-foot rope will be able to descend all the way to the canyon floor in one shot. Once down, remove your harness for the short walk downcanyon to the confluence with the Middle Fork.

**MIDDLE FORK:** From the Monument Point parking area, follow the Bill Hall Trail as it follows the rim a short distance and climbs to Monument Point. The path then descends steeply through the Kaibab Limestone to the south with views of Bridgers Knoll, and then bends to the northwest to travel on top of the Coconino Sandstone at a more level grade. The path turns to the southwest at a break in the Coconino to descend steeply down into the canyon to arrive at the Esplanade bench (a wide flat area consisting of red sandstone) and signed junction with the Thunder River Trail.

Turn right (north) onto the Thunder River Trail and follow it for about 1.5 miles to a point where the path crosses the Middle Fork of Deer Creek at UTM: 12S 369390 mE, 4033961 mN WGS84. Leave the trail and walk down into the drainage. After some hiking, you'll reach a pour-off that can either be rappelled or bypassed a short distance downcanyon on the left by downclimbing on large boulders, then thrashing through the underbrush to regain the creekbed. Continuing downcanyon, you'll arrive at two back-to-



back nuisance rappels. After completing a short downclimb at a pool, the first rappel is 35 feet in length from a small arch on the left. The second rappel is 50 feet in length from a rock-chock under a shelf on canyon right.

A bit more walking will bring you through the Supai to the Redwall Limestone, which begins as a fairly shallow channel then slowly begins to deepen into a narrow slot. As the canyon narrows, pools begin to form and you'll want to put on a wetsuit. There are many such pools in the canyon and the water is quite cool. After wading and swimming through several pools, you'll arrive at a chockstone and 10-foot falls that may be descended using a last-man-at-risk technique. The last person down should be a good climber and can descend on the right using a flake as a handhold. Just below is a 25-foot rappel from a single bolt and hanger on the left into a beautiful, water filled, serpentine slot.

After some wading and possibly swimming, you'll arrive at a rappel of 20 feet into a pool from a constructed rock pile, which passes beneath three large chockstones wedged between narrow canyon walls above. More hiking, downclimbing, wading and swimming in a stunning gorge brings you to a rappel of 15 feet from a rock-chock on the right. Farther downcanyon is a 20-foot rappel from a constructed rock pile, followed by a climb over a chockstone and 25-foot rappel from a pinch point on the left formed by a large boulder. Soon thereafter, you'll reach a 75-foot drop into a deep alcove which may be rappelled using a pinch point on the left as an anchor. **⚠️WARNING⚠️** The pool at the base of this rappel may be a keeper pothole if water levels are low. Do not pull your rope until you are sure you can escape. Not far below is a downclimb, which may require a belay or spot from below and the canyon widens and the pools abate.

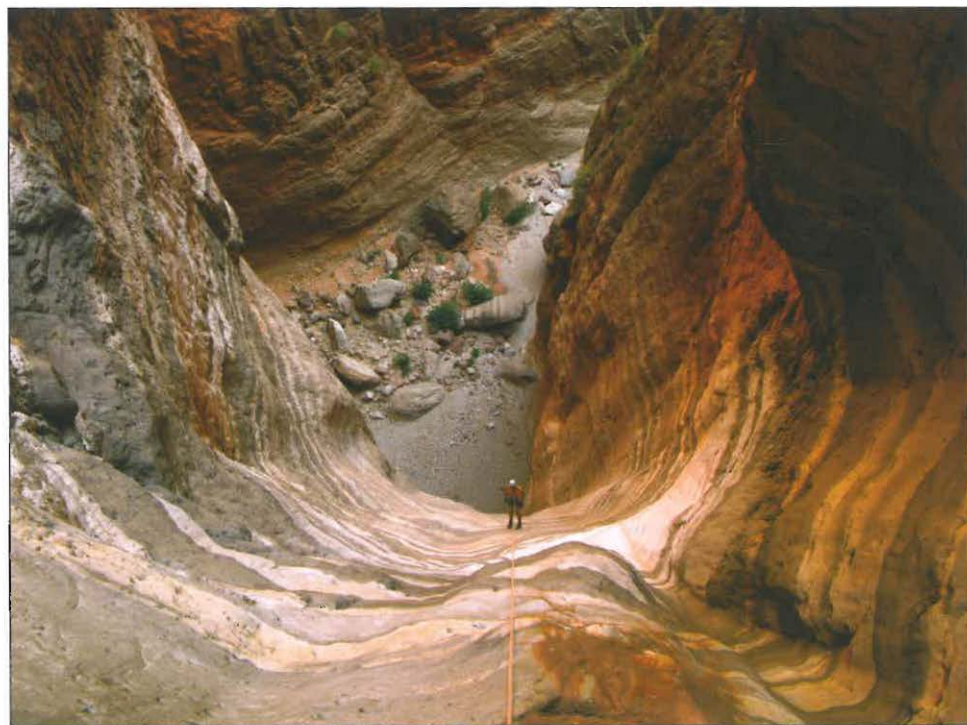
Remove your harness and wetsuit and begin rock-hopping downcanyon, negotiating large boulders where necessary to soon arrive at the confluence of the Middle and Western Forks of the canyon.

**CONTINUATION OF THE WESTERN AND MIDDLE FORKS:** Assuming there are some puddles in the area to provide water, and heavy rains aren't threatening, there are a few good campsites on benches at the confluence of the Middle and Western Forks of the canyon. Otherwise, it's a straightforward hike from here down to the Deer Creek Trail, though you'll encounter some large chockstones along the way, which require route-finding to negotiate. The first such obstacle may be bypassed on the left, the second on the right and the third right down the middle, climbing through a hole formed by some large boulders. A mile below the upper confluence, the walking becomes easier and you'll arrive at the confluence with the Eastern Fork of the canyon, which enters from the left. Continue downcanyon another mile and you'll reach running water where the first of three springs adds flow to the creekbed. A short distance below the first spring, look for the Deer Creek Trail, which climbs out of the streambed on the left for its 9-mile ascent to the rim.

**EASTERN FORK:** From the Monument Point parking area, follow the Bill Hall Trail as it follows the rim a short distance and climbs to Monument Point. The path then descends steeply through the Kaibab Limestone to the south with views of Bridgers Knoll, eventually bending to the northwest to travel on top of the Coconino Sandstone at a more level grade. The path turns to the southwest at a break in the Coconino to descend steeply down into the canyon to arrive at the Esplanade bench (a wide flat area consisting of red sandstone) and signed junction with the Thunder River Trail.



*Looking into the keeper pothole in the Middle Fork of Deer Creek (Photo by Rich Rudow)*



*The 250-foot (minimum!) rappel in the Western Fork of Deer Creek*

Turn left (southeast) onto the Thunder River Trail and follow it across the slickrock for about a mile to a point where the path crosses the Eastern Fork of Deer Creek at UTM: 12S 369702 mE, 4032004 mN WGS84. Leave the trail and walk down into the drainage. After some hiking, you'll reach two consecutive pour-offs. The first may be bypassed on the left, the second on the right. After covering some more distance, the canyon once again drops away in two stair-stepped pour-offs. The first may be bypassed by following ledges on the right and climbing down, somewhat sketchily, onto a constructed rock step. The second may also be bypassed by working your way around to the right, then down a long, talus slope covered with loose rocks.

The Redwall begins shortly after reentering the creekbed and soon you'll reach a large chockstone and rappel of 20 feet in length from a pinch point on the right at the top of the drop. Below, the canyon is largely a hike for most of its length. Unfortunately, the Redwall never narrows significantly, though the redbud trees and towering red walls make for a reasonably scenic hike. After some walking, you'll come to the only other rappel in the canyon. The drop may be negotiated by either completing a 100-foot rappel from a pinch point on the left located right at the top of the drop, or by working your way around on the right to a narrow ledge to rappel 50 feet from a small but sturdy shrub to the slope below.

A long boulder field lies below this final rappel. Some climbing and route-finding is required in order to negotiate a path through the obstacles until you eventually arrive at the confluence with the main arm of Deer Creek. Continue downcanyon another mile and you'll reach running water where the first of three springs adds flow to the creekbed. A short distance below the first spring, look for the Deer Creek Trail, which climbs out of the streambed on the left for its 9-mile ascent to the rim.

**DEER CREEK TRAIL:** Follow the Deer Creek Trail as it climbs steeply up to Deer Spring, then farther upwards to the dry, shadeless expanse of Surprise Valley. Stay left at any unsigned junctions in the valley as the path bends north to soon begin the steep climb up a series of tight switchbacks to gain the top of the Supai layer and the Esplanade bench. Follow the trail and cairns across the slickrock sandstone to eventually arrive at the unsigned junction with the Bill Hall Trail. Those who began the hike at Monument Point will turn right on the Bill Hall Trail, the rest will continue west on the Indian Hollow Trail. Retrace your steps the remaining distance back up to the rim and your vehicle.

#### **AUTHOR'S RATING**

**Western Fork:** ★★★★★

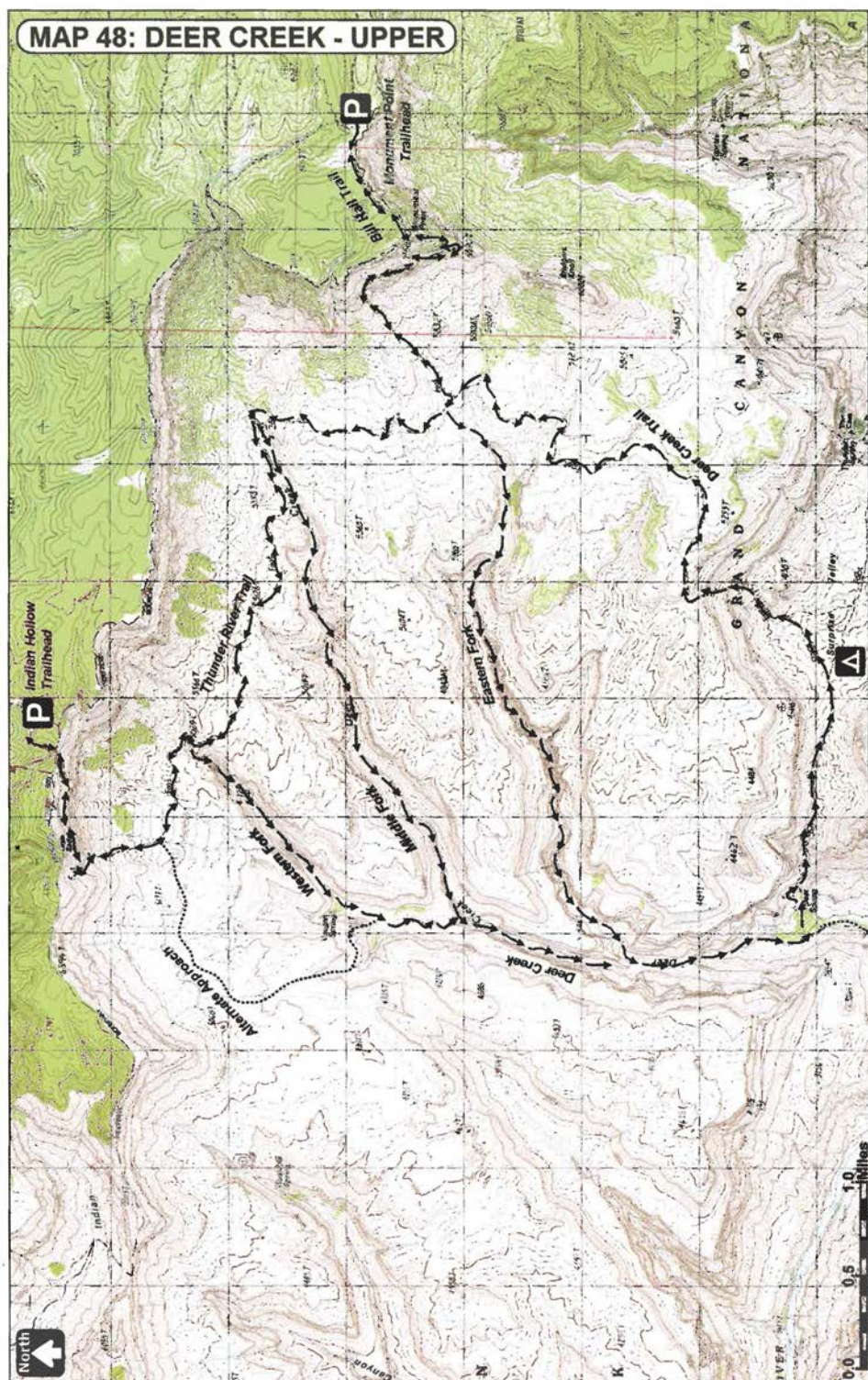
**Middle Fork:** ★★★★★

**Eastern Fork:** ★★

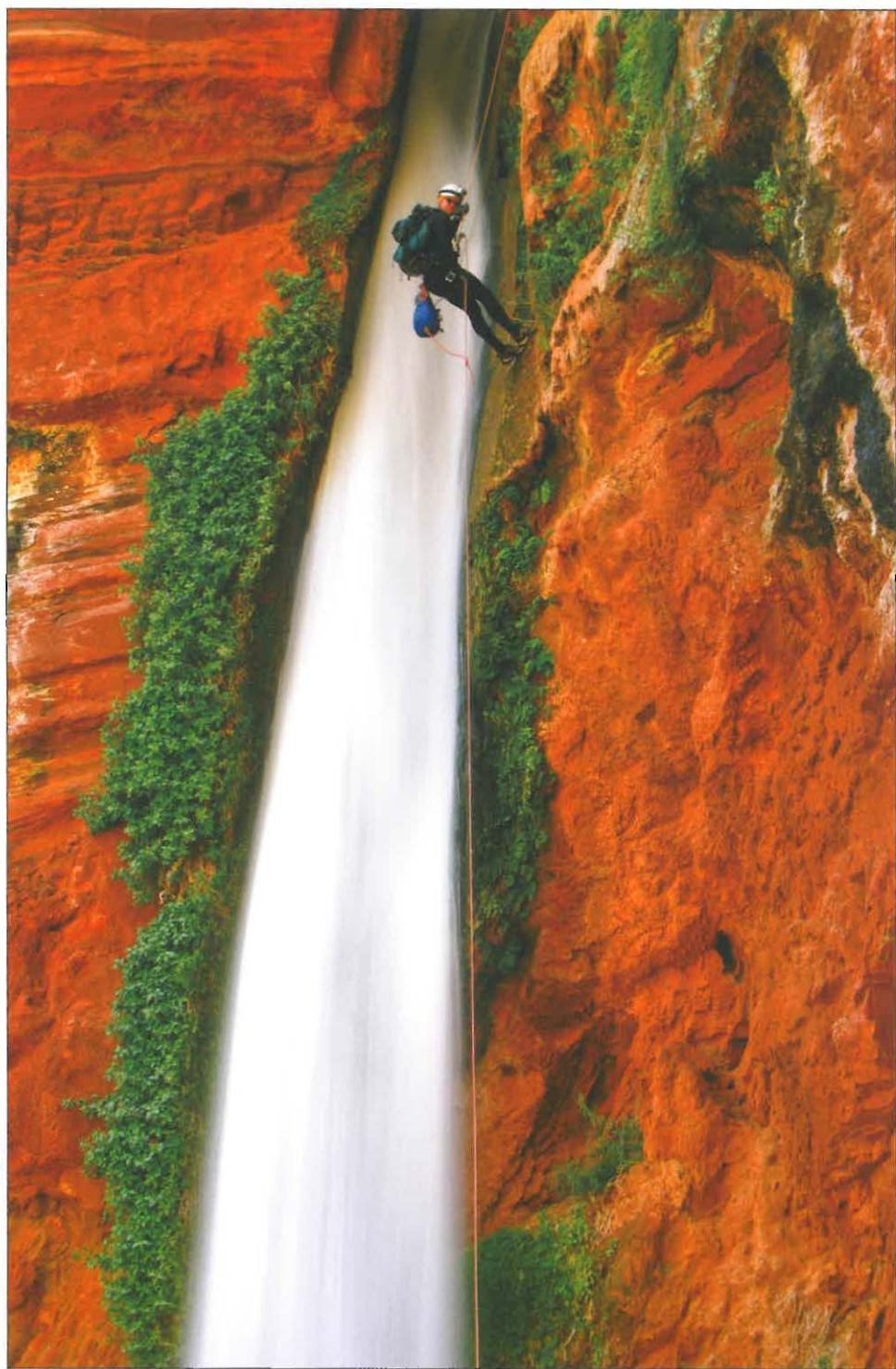
With a little beta from Brian Alleyne who had descended the Middle Fork a short distance and retreated, Rich Rudow, Albert Putzig and I left the rim at Monument Point one cold April morning after a night of snow flurries. Concerned that my 3mm wetsuit might not be sufficient, I borrowed a 3mm shorty to wear over the top of my full suit. The pools in the Middle Fork turned out to be ubiquitous, deep and bitterly cold. The mild hypothermia that followed, however, did little to detract from the amazing beauty of the slot. We camped at the confluence of the upper arms after a 9 hour day, and then looped back up and around the following day for a descent of the Eastern Fork. Given the discovery of the day before, we were all rather disappointed to find that the eastern arm failed to form any true narrows. We camped in the canyon once again after a 12 hour day of hiking. At a later date, Rich Rudow and I completed the Western Fork of the canyon carrying a 250-foot rope. Every bit of it was needed to negotiate the final drop.



MAP 48: DEER CREEK - UPPER







*Deer Creek Falls*

## 49: Deer Creek (lower)

**OVERVIEW:** A short, but stunning, technical canyon deep within the Grand Canyon with wild, rushing water and a big waterfall.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AX9, AM9

**REQUIRED GEAR:** 1x60' rope, 2x200' ropes, 30' webbing, 4 rap rings, harness, descender, helmet, carabiners, cow's tail or sling, drybag and wetsuit. A whistle is also a good idea, since the noise of the water makes communication difficult.

**SPECIAL CONSIDERATIONS:** Water is available in Deer Creek and at the Colorado River. Because of the danger associated with large volumes of flowing water, this canyon should only be attempted by experienced canyoneers capable of evaluating and navigating swift water canyons. The water in the canyon is very cold, wetsuits are required. A permit is required from the National Park Service if completing this hike as an overnight trip. Because Deer Creek is a heavily used area and permits are issued on a first come, first served basis, applications need to be submitted far in advance of your trip.



**ACA Rating:** 3C R VI

**Distance:** 24.0 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 7,200 – 1,960 ft.

**Time Needed:** 1 – 3 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car if roads are dry

**Car Shuttle:** No

**Maps:** USGS Fishtail Mesa 7.5 (canyon),  
Tapeats Amphitheater 7.5 (trail)

**Navigation:** Easy

### DRIVING DIRECTIONS

Deer Creek is located on the North Rim of the Grand Canyon and is most easily accessed from Monument Point via the Bill Hall trail. There are many ways to drive to Monument Point, this is one option. Take Highway 89A to its intersection with State Highway 67 at Jacob Lake. Travel south on Highway 67 for ¼ mile then turn right on Forest Road (FR) #461 towards the RV Campground and Vista Points. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Drive 3.2 miles to the intersection with FR #22 and turn left. Continue on FR #22 for 11.7 miles then turn right on FR #425 heading towards Crazy Jug Point and Monument Point.

### TRIP DESCRIPTION

**APPROACH:** From the parking area, follow the Bill Hall Trail as it follows the rim a short distance and climbs to Monument Point. The path then descends steeply through the Kaibab Limestone to the south with views of Bridgers Knoll, and then bends to the northwest to travel on top of the Coconino Sandstone at a more level grade. The path turns to the southwest at a break in the Coconino to descend steeply down into the canyon to arrive at the Esplanade bench (a wide flat area consisting of red sandstone) and signed junction with the Thunder River Trail.

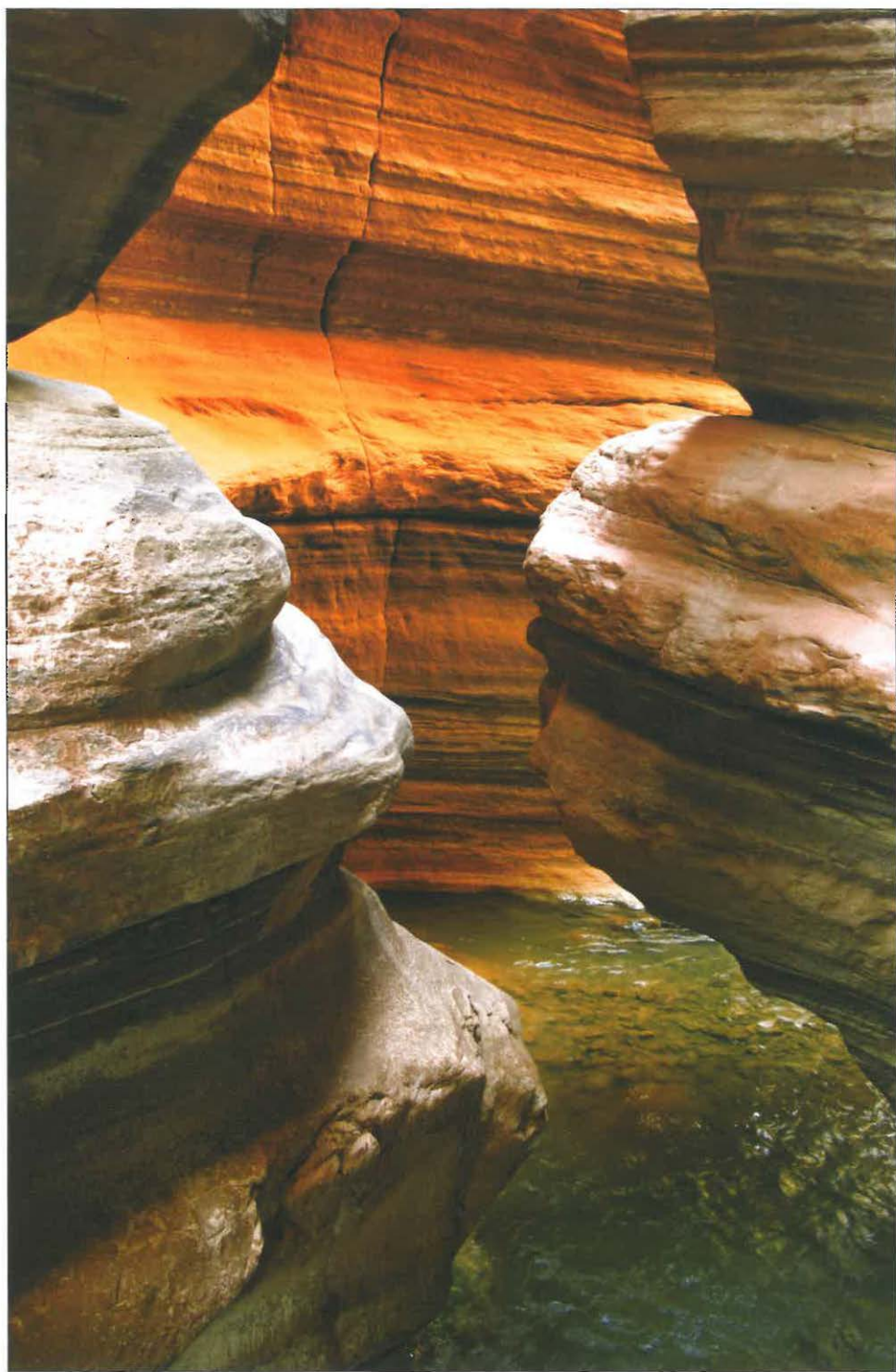


At the Esplanade bench, the Bill Hall Trail intersects the Thunder River Trail; turn left at the junction. The trail remains flat as it winds along the Esplanade for several miles. There are long stretches where there is no visible trail (since it travels over slickrock sandstone much of the way), however cairns have been placed at frequent intervals making route-finding an easy task. Eventually, the trail curves towards the main canyon where it drops steeply off the Esplanade through the Supai and Redwall Limestone formations into an area on the Tonto Plateau called Surprise Valley. Just as you reach Surprise Valley, you will come to an unsigned junction with the right branching Deer Creek Trail (left will take you to Thunder Spring and Tapeats Creek). Turn right onto the Deer Creek Trail and follow the path as it travels over a few low hills, passing a left branching spur trail, which is used by hikers traveling from Tapeats to Deer Creek (or vice versa) before climbing to a saddle at the head of a side drainage of Deer Creek.

The trail travels at a moderate grade down this side drainage on one side of the dry streambed or the other until you reach a point where the stream drops off a cliff above Deer Spring. At this point, the trail proceeds right across a rocky slope then begins descending steeply towards Deer Creek Canyon, which is visible below. Continue down the steep rocky slope to the valley floor, passing Deer Spring along the way. The trail crosses the creek and bends left to travel downcanyon. Along the way you will pass a short side trail and sign for a composting toilet, soon reaching a nice campsite under the cottonwood trees by the stream just above the Deer Creek narrows.

**CANYON:** From the nice campsite, follow the trail downcanyon a short distance to a slickrock bench at the head of the narrows. This makes a nice staging area to begin your adventure. The first order of business is to assess the stream flow. This can be done from the head of the canyon, but it is also worth the effort to follow the trail down to the river to assess the flow of Deer Creek Falls. This will also give you a better idea of the challenges ahead. If all looks well, retreat to the staging area, put on your wetsuit and climbing gear and cross the stream to the left side of the canyon. Walk downcanyon along the bench a short distance below the first two falls to a point where a rock fin protrudes into the stream bed. This is your entry point. The downclimb is a little tricky and some might want a hand-line or belay.

Once in the canyon, begin splashing your way downstream. The nice narrows begin immediately. Soon you will reach the first rappel, a 15-footer from pinch point formed by a boulder in the canyon bottom. Walk downstream through spectacular narrows. There are a few small waterfall downclimbs, but no major obstacles. Just after a short swim around a right hand corner you will arrive at rappel #2, an 85-foot double waterfall rappel from two good bolts up on the wall on the right (there is a slight bend in the canyon at the second falls, so make sure the last person in your group places the rope correctly for a smooth pull, this is also a good place to put the whistle to work since it is not possible to see the end of the rope). Immediately after these falls, you will reach rappel #3 and will see daylight just beyond at the big falls. Rappel #3 is a 20-foot drop from two bolts and hangers (one old, one new) on a shelf on the right, which requires a short traverse to reach. You will want to use your shorter rope here since there is not a lot of room below at the top of the big rappel. This short rappel brings you right to the top of Deer Creek Falls where the water makes tight 90 degree right and left turns before making the plunge to the pool below.



*The Tapeats Sandstone narrows of Lower Deer Creek*

The final rappel down Deer Creek Falls is a spectacular 180-footer from two good bolts on the left. Though the current isn't terribly strong, it is a good idea to stay on rope from rappel #3 until you can clip into the bolt station at the top of the big drop. While I'm doling out advice, I'd also strongly recommend lowering your rope instead of throwing it over Deer Creek Falls since the pool below is a popular hangout for the rafting crowds. It is best if the last person in the group rappels with the pull-cord or pull-rope in a bag attached to their harness so that it feeds out as they rappel. This will prevent the pull-cord from tangling with the rappel strand in the waterfall. As you rappel, watch your foot placement and try to minimize any damage to the travertine and moss covered wall on which you're descending.

Once everyone is down and your ropes are pulled, you can return to camp via a trail that exits from the stream below the falls on canyon right.

**PHOTOGRAPHERS NOTE:** There is a good ledge high on the wall to the left of the falls (facing the river) that makes a great camera platform for taking pictures of your friends rappelling the falls. The ledge is accessed via a use trail from the river.

### *AUTHOR'S RATING ★★★★★*

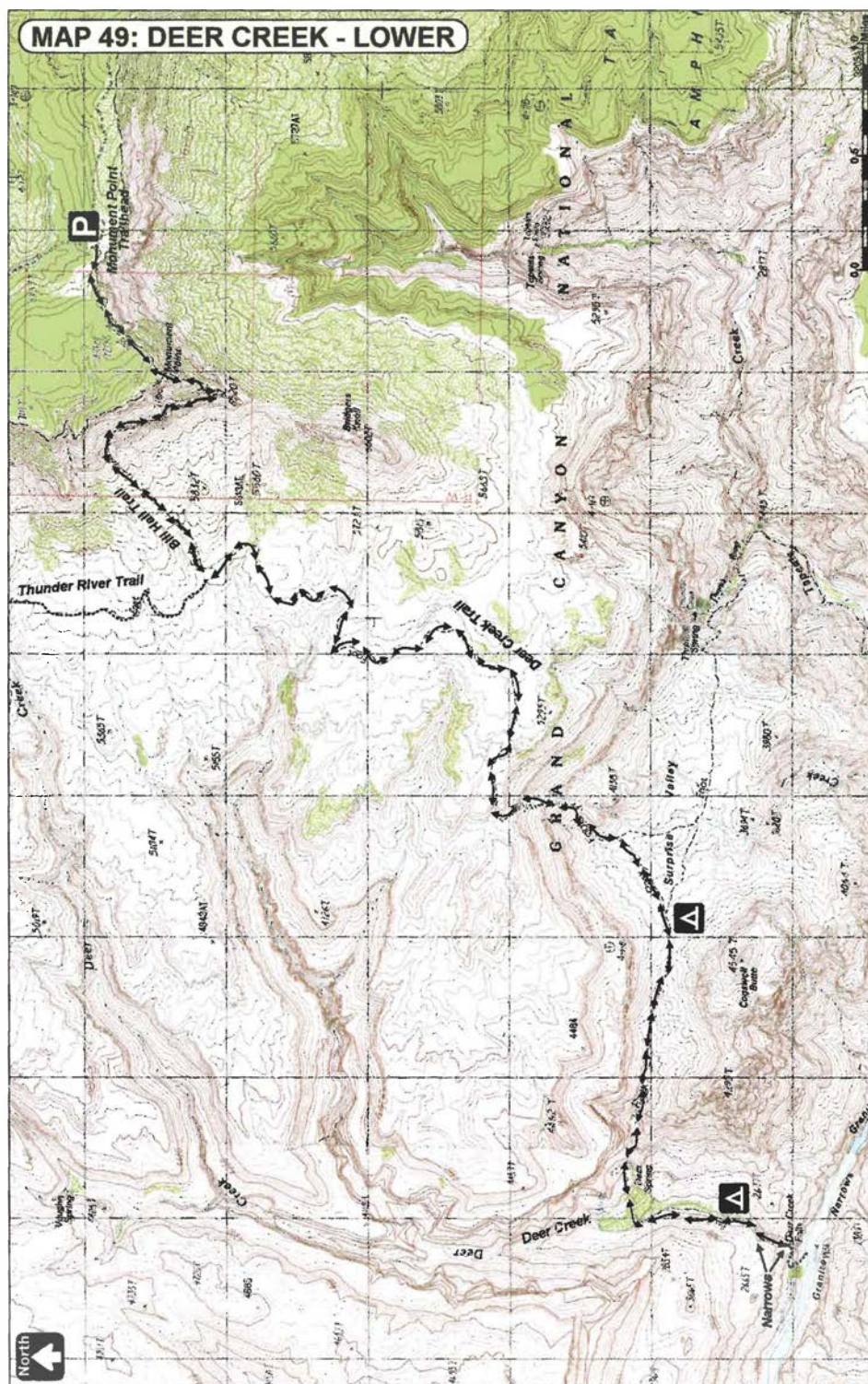
Despite the hassles associated with the permit process, the effort required to haul heavy canyoneering gear along a 9-mile approach (1-mile vertical), the crowds of boaters, and fact that the canyon is only a few hundred yards long, Deer Creek remains one of my favorite canyons of all time with a high level of beauty and excitement packed into its short length. Those wishing to increase the reward to effort ratio may try running through the canyon twice on the same day.



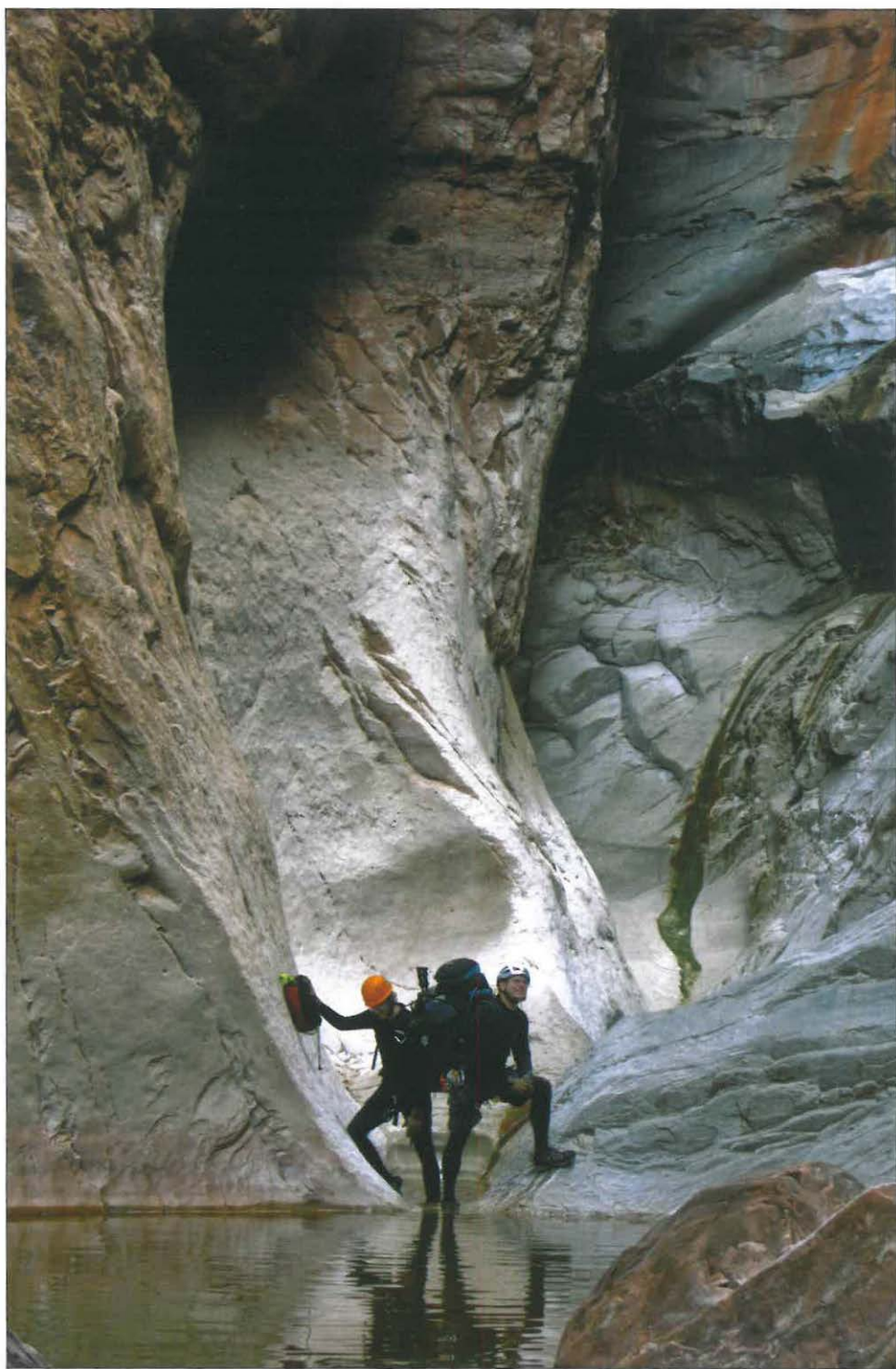
*Rich Rudow in Lower Deer Creek*



MAP 49: DEER CREEK - LOWER







*The Eastern Fork of Fishtail Canyon*

## 50: Cranberry and Fishtail Canyons

**OVERVIEW:** A loop hike through Cranberry Canyon and/or the arms of Fishtail Canyon, returning via the Cranberry Route or the Deer Creek Trail.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: AZ9

**REQUIRED GEAR:** Harness, descender, helmet, carabiners, drybag and the following gear: **Cranberry Canyon:** 2x300' ropes, 40' webbing, and 4 rap rings. **Western Fork Fishtail:** 2x200' ropes, 30' webbing, and 4 rap rings. **Eastern Fork Fishtail:** 1x200' rope (or 2x100' ropes), 50' webbing, 8 rap rings, and a wetsuit.

**SPECIAL CONSIDERATIONS:** Water is available at Hualapai Spring, in each fork of Fishtail Canyon, at the Colorado River, at Siesta Spring, from a small dripping spring along the Cranberry Route and at Deer Creek. These canyons require good natural anchor skills. The water in the Eastern Fork of Fishtail Canyon is very cold, wetsuits are necessary in all but the hottest weather. This hike requires a permit from the National Park Service.



**ACA Rating:** See below

**Distance:** 15–25 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 6,250 – 1,950 ft.

**Time Needed:** 3 – 4 days

**Best Time of Year:** Spring, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Fishtail Mesa 7.5,  
Tapeats Amphitheater 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

From Flagstaff, drive north on Highway 89. Turn left on Highway 89A and drive to Jacob Lake. Travel south on Highway 67 for ¼ mile then turn right on Forest Road (FR) #461 towards the RV Campground. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Drive 3.2 miles to the intersection with FR #22 and turn left. Continue on FR #22 for 11.7 miles then turn right on FR #425 heading towards Crazy Jug Point and Monument Point. Follow this road 8.4 miles and turn right on FR #232 and follow it 5 miles to the Indian Hollow Campground and Trailhead.

### TRIP DESCRIPTION

From Indian Hollow, walk past the trailhead sign and take a quick walk through the woods to the edge of the Canyon. The Thunder River Trail drops a short distance before proceeding west along a ridge to a point where breakdown at a bend in the canyon wall allows you to make your descent through the Coconino Sandstone. The trail switchbacks steeply down to the Esplanade and a small sign post for Trail #23.

Depart the trail at the sign and head to the right, steering a southwesterly course across the rolling, blackbrush covered plains, dodging the grasping branches of this shrub as you proceed. Mount Sinyella in the distance provides a rough heading until you reach a point where the Coconino cliff band juts out from the rim.



**CRANBERRY CANYON (RATING 3A VI):** To get to Cranberry Canyon, contour to the south remaining to the west of the Deer Creek drainage to enter the shallow wash of Cranberry Canyon near GPS Point: UTM: 12S 364247 mE, 4032864 mN WGS84 Datum. The drainage soon begins dropping quickly, and, after some downclimbing through Supai boulders, you'll arrive at the confluence with the right fork of the canyon. A slow dripping but reliable spring may be found behind a large boulder under an overhang just downcanyon of the junction of the east and west arms at GPS Point - UTM: 12S 363914 mE, 4032164 mN WGS84 Datum.

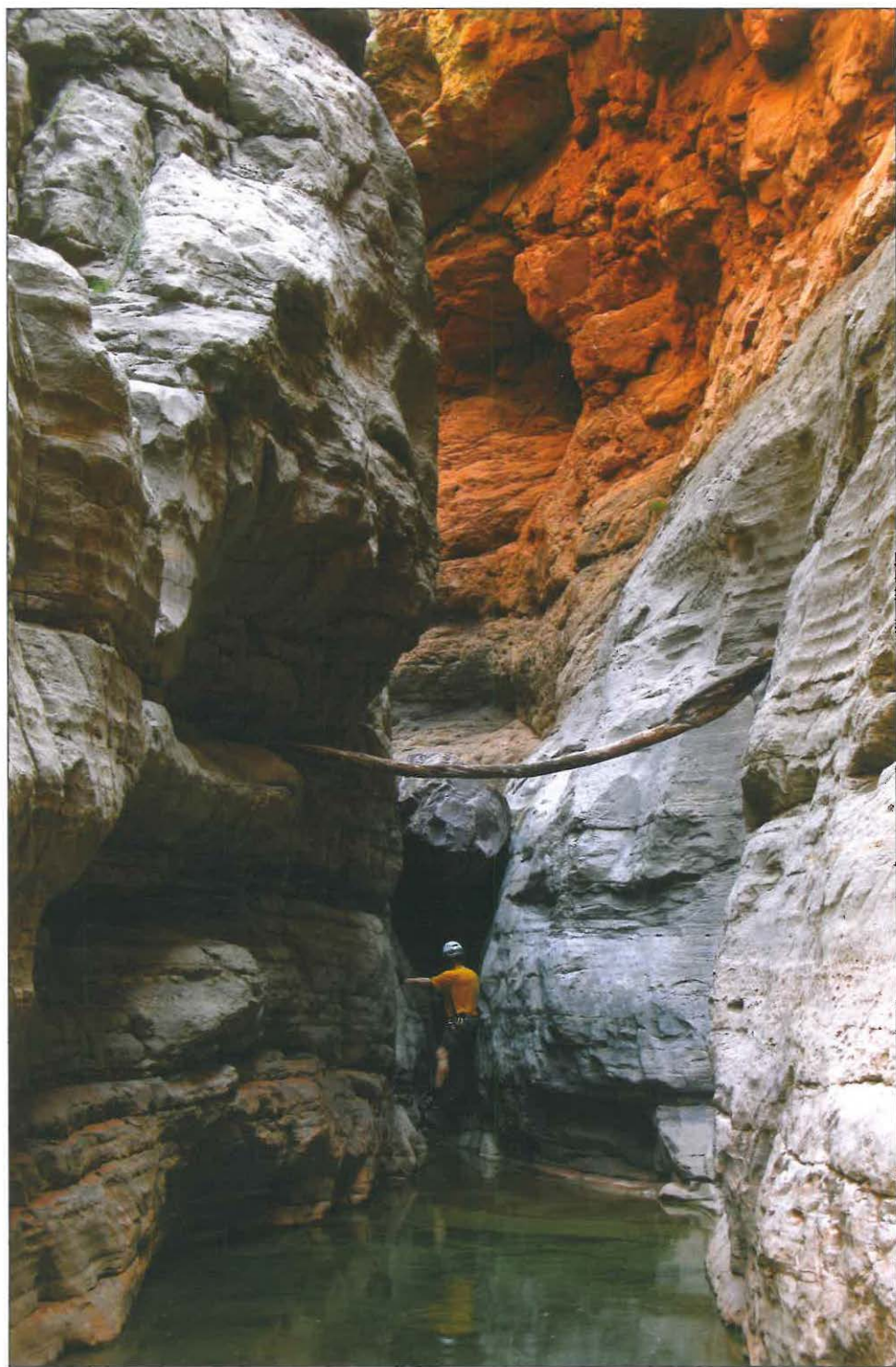
Continuing downcanyon, the drainage enters a wide, brush-filled valley. Remain in the streambed until it eventually begins to cut into the Redwall forming a shallow and moderately scenic slot. Soon, you will arrive at the first of two potholes that at first glance appear to be 'keepers'. The first has a small ramp on the downstream side that allows for an easy exit. The second must be entered using rope (rig from a boulder at the top of the drop for a 30-foot rappel) and may be exited by good climbers using a prominent crack on the downstream right. A moderately challenging 15-foot downclimb is required on the downcanyon side of the pothole; alternatively, it would be possible to extend the rope over the pothole to rappel this obstacle. Both of these potholes were dry when I was here.

A short distance below the pothole, you'll arrive at a large vertical drop that may be rigged using two solid knot-chocks in a crack on the left. The rappel may be completed as a single 260-foot rappel or two shorter rappels by re-rigging from a large mid-wall ledge (I have not done the latter, but this strategy would enable the canyon to be completed with two 200-foot ropes). Below the big rappel, the canyon becomes wide and rather uninteresting. After a considerable amount of rock-hopping you will eventually come to a cliff band that requires a 30-foot rappel using a small chockstone or boulder at the top as an anchor. A short distance later, and just above the river, you will encounter a 45-foot drop in the Tapeats. A rock horn or boulder on the right may be used as an anchor. A short stroll below will bring you to the rocky mouth of the canyon and the Colorado River. Turn left, proceeding upriver, following the exit directions below.

**FISHTAIL CANYON (RATING 3B VI):** Regardless of which fork of Fishtail you'll be doing, the next goal is to get to the top of the Redwall in the Eastern Fork. From there, those who wish to do the Western Fork can simply follow the top of the Redwall around into that arm of the canyon. Two routes to this spot are described below.

The easiest route is to continue around the Coconino cliff band to hike in a northwesterly direction towards a minor drainage just south of the head of the Eastern Fork of Fishtail Canyon at GPS Point - UTM: 12S 363239 mE, 4033947 mN WGS84 Datum. While working your way down this drainage, you will encounter the remains of an old fragmentary trail marked with a few cairns at infrequent intervals. The course is non-technical, but some route-finding is required to get through a few cliff bands. When you reach a point where you can look into the main eastern arm of the canyon, your progress will be blocked by another cliff band. Proceed to the north at this point along the top of the cliff, until you reach a point where you can work your way down into the eastern arm.

An alternate route is to proceed to the head of the Eastern Fork of Fishtail Canyon at GPS Point - UTM: 12S 363166 mE, 4034448 mN WGS84 Datum. Traveling downcanyon you'll soon be stopped by a 10-foot pour-off created by a large boulder. The safest way down is to rappel using a pinch point a short distance back from the edge on the left as an



*Lower Fishtail Canyon*

anchor. Just below is another dryfall, which may be bypassed by bushwhacking around on the left. A short distance downcanyon, you'll arrive at another pour-off, which is probably best rappelled, though it may also be bypassed by walking a ledge on canyon right for approximately 100 yards then downclimbing, with some exposure and difficulty, at a large boulder that has split off from the main cliff band.

Either of the routes above will bring you to a large pour-off just above Hualapai Spring. Circumvent the falls by climbing the hillside on canyon left to locate a cairned trail, which may be followed for some distance downcanyon. When the trail peters out, route-find down the steep slope to get back into the drainage bottom. A bit more rock-hopping will bring you to the start of the Redwall.

**Western Fork Fishtail:** To get into the Western Fork of Fishtail simply leave the canyon to the right to follow the top of the Redwall down the Eastern Fork and then up the Western Fork. The walking is a little rough at first, but becomes easier as you proceed. Once in the Western Fork, the canyon begins with a sporty 40-foot downclimb (a belay may be desired) on a sheer wall with good hand and foot holds. Continue downcanyon a short distance to a 15-foot downclimb formed by two chockstones (passing packs recommended).

The technical section begins a short distance downcanyon and starts off with the longest rappel in the canyon at 200 feet. The anchor point is a knot-chock on the right, backed up by a rock-chock. Both chocks are in a crack in the same layer of limestone. The rappel brings you into a deep, narrow and pretty slot. Proceeding down through the slot, you'll encounter a downclimb at a chockstone and more scenic narrows.

As the canyon widens you'll arrive at a 10-foot nuisance rappel from a pinch point at the top. Somewhat farther downcanyon you'll encounter a 40-foot rappel over a large chockstone with a small palm tree growing beneath it. The anchor is a pinch point at the top of the drop. A few downclimbs bring you to the confluence with the Eastern Fork of the canyon.

**Eastern Fork Fishtail:** Those descending the Eastern Fork of Fishtail should put on harnesses, helmets and wetsuits given that the rappelling and swimming begins immediately. A 35-foot rappel is required to enter the narrows, which are rather shallow to start. A pinch point formed by large boulders at the top of the drop may be used as an anchor. The rappel ends in a pool, but those determined to postpone the inevitable soaking may be able to de-rig at a small ledge just above the waterline and traverse it to the right (facing downcanyon). Continue down the drainage to rappel #2, which is 50 feet in length from a bolt and hanger on the left into a pool. Rappel #3 lies just beyond, and features a beautifully sculpted 95-foot drop to the top of a pool from a single bolt and hanger on the left.

The canyon widens below the drop and a short walk will bring you to rappel #4, which is 25 feet in length from a bolt on the left. Rappel #5 is 30 feet from a small arch on the right (alternatively a pinch point at the top of the drop may be used). Rappel #6 is 30 feet from a single bolt into a big pool to arrive at the confluence of the Eastern and Western Forks of the canyon.

**Fishtail Confluence:** Below the confluence the canyon narrows once again and soon you'll arrive at the final rappel, which is 40 feet in length from a pinch point at the top. Below this point are numerous pools and obstacles, some of which may require a belay or rappel.

Eventually, the canyon becomes less vertical and enters a wide, flat, gravel strewn



drainage at a point where you'll be able to see across to the Redwall on the south side of the river. It may seem at this point as if it will be an easy stroll the remainder of the way to the river, but you'd be mistaken. After a few moments of pleasant, easy walking, the canyon suddenly drops very steeply through a field of house-sized boulders through which you'll have to pick a route. The tallest of the drops created by the boulders may be bypassed on canyon left, however some exposed climbing may be required to negotiate this section. A final vertical climb down a 20-foot breccia cliff brings you to the dark brown, vertically striated Tapeats sandstone layer and the Colorado River lies a short distance beyond. Good campsites may be found on the beach above the river.

Walk upriver to the end of the Fishtail beach, then climb up and follow the Tapeats ledges until you reach a large canyon entering from the left. This is Cranberry Canyon.

**EXIT:** Just past the mouth of Cranberry Canyon, take a moment to locate a fairly well worn and cairned trail that ascends the slope to continue upriver at a higher level along the Tapeats. Follow the path until you reach a perennial spring, which waters one of the few palm trees I've seen in the canyon (George Steck refers to this as Siesta Spring in his book *Hiking Grand Canyon Loops*).

From here you have a choice, you can continue along the trail heading upriver until you reach Deer Creek and then hike the Deer Creek Trail back to the Thunder River Trail and Indian Hollow (17 miles); or, you can brave the Cranberry Route, which climbs the steep hillside above you to a point on the Supai rim where you can retrace your steps to Indian Hollow (9.5 miles). The latter is half the distance but twice the work.

**Exit Option 1 – Cranberry Route:** Warning: The climb to the top of the Redwall on the Cranberry Route is steep, loose, crumbly and thoroughly unpleasant. It should only be attempted by strong hikers with excellent route-finding skills experienced with hiking off-trail in the Grand Canyon.

Walk to the upriver side of the spring, then leave the trail to the left to begin climbing the steep slope upwards towards a V-shaped notch in the Supai headwall far above at UTM: 12S 363204 mE, 4030000 mN WGS84 Datum. You may have to cross a few gullies along the way in order to gain access to the incline that reaches the Redwall at the correct point. Be prepared for rocks to shift beneath your feet with every step, creating a hazard for yourself and those below you.

When you finally reach the top of the slope at a point below the notch, there will be a deep gully to your right and a sheer limestone cliff on your left. Continue upwards by hiking just to the right of the limestone cliff to identify a section of the cliff face that is somewhat less vertical. This point lies just around the corner on the left and requires a 25-foot 4th class climb to reach the top of the Redwall above (good hand and foot holds abound, but be sure to test them for security since much of the rock is fragmented and loose).

Now that you are above the Redwall, you'll want to contour back to the left (west) along the angled slope to Cranberry Canyon, which consists of a wide, brush-filled valley above the Redwall. Once in the Cranberry drainage, simply follow this ravine upwards to the northeast all the way to the head of the canyon. There are two forks in the upper part of the drainage; either allows access to the rim. Those in need of water will find a slow, but reliable spring behind a large boulder, under an overhang just downcanyon of the junction

of the east and west arms at GPS Point - UTM: 12S 363914 mE, 4032164 mN WGS84 Datum. After filling water bottles, continue up one or the other drainage and follow it the remaining distance to the top of the Supai.

From the top of the Supai it's a simple matter to retrace your steps north, then east across the blackbrush dotted plains to the Thunder River Trail (make sure your route trends towards the northern cliffs so that you don't accidentally walk past the trail). Follow the Thunder River trail the remaining distance to the rim, the Indian Hollow Trailhead, and your vehicle.

**Exit Option 2 – Deer Creek Route:** From Siesta Spring, continue to follow the Tapeats ledges upriver. The trail follows ledges for some distance before eventually dropping down to travel on sand and rocks at river level for the last mile to Deer Creek and the falls.

Pick up the Deer Creek trail, which begins just downriver from the falls and leads to the top of the narrows. Continue up Deer Creek through a nice campsite under the cottonwood trees, then past a short side trail and sign for a composting toilet. The path continues upstream, and then bends right, crossing it, to climb up a slope to reach a spur trail to Deer Spring. Stay left at the junction and continue to climb the steep slope. The path then bends right to cross a rocky slope to reach a dryfall above Deer Spring. The route travels up the dry streambed on one side of the drainage or the other to reach a saddle overlooking Surprise Valley.

Descend into Surprise Valley to reach an unsigned junction with the Thunder River trail. Turn left on the Thunder River trail (right will take you to Thunder Spring and Tapeats Creek) and climb steeply through the Redwall Limestone and Supai formations to eventually reach the Esplanade. The trail becomes level as it winds along the Esplanade for several miles. There are long stretches where there is no visible trail, since it travels over slickrock sandstone much of the way; however, cairns have been placed at frequent intervals making route-finding a fairly easy task.

After several miles of hiking, you'll intersect a signed junction with the Bill Hall trail. Stay to the left, remaining on the Thunder River trail, which is somewhat less distinct in this section as it travels west around several large upper arms of Deer Creek. Approximately four miles from the Bill Hall junction, you'll reach the small sign for trail #23 you passed earlier. The path bends right and climbs the remaining mile to the rim, the Indian Hollow Trailhead and your vehicle.

#### *AUTHOR'S RATING*

Fishtail Canyon – Eastern Fork: ★★★★★    Fishtail Canyon – Western Fork: ★★★★★  
Cranberry Canyon: ★★

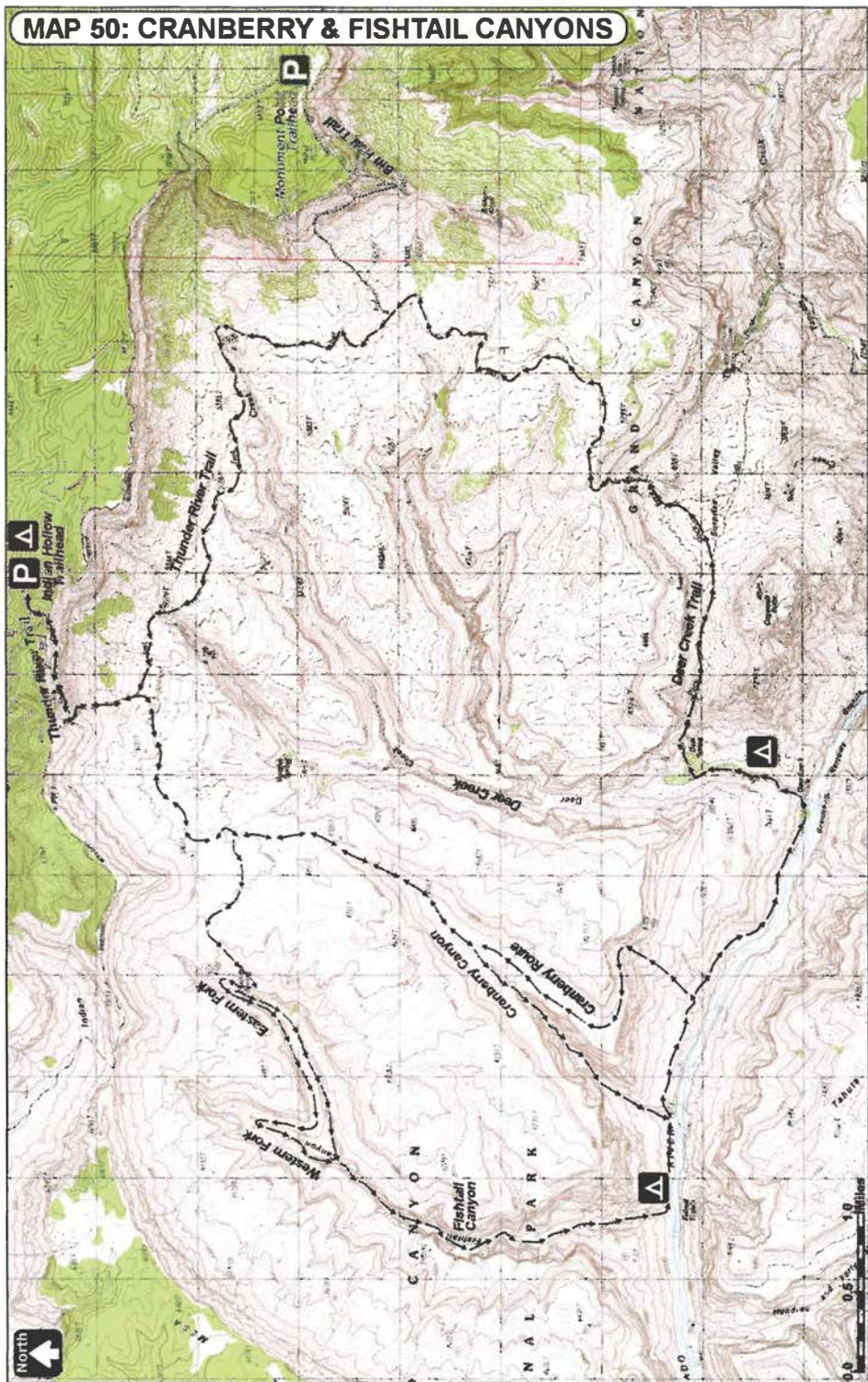
Brian Alleyne pioneered the first descent of the Eastern Fork of Fishtail Canyon. Armed with the beta from his experience, I completed the canyon with Rich Rudow and Luke Delezene as a 2.5-day trip. On the first day we made it from the rim at Indian Hollow to the beach at the mouth of Fishtail at a fairly brisk pace in 10 hours (your time may vary). The second day we hiked out via the Cranberry route to camp on a flat spot on the Supai, completing the ascent to the rim the morning of the third day. At a later date, Rich Rudow and I completed the Western Fork of the canyon as part of a 3.5-day trip.



*Cranberry Canyon*



**MAP 50: CRANBERRY & FISHTAIL CANYONS**







*Entry rappel into Kanab Zero Canyon (Photo by Rich Rudow)*

## Chapter 8: Western Grand Canyon

The Western Grand Canyon encompasses the area from Kanab Creek to the Grand Wash Cliffs. Kanab Creek is one of the three major tributaries of the Colorado River. Its headwaters lie 72 miles to the north in Utah near Bryce Canyon. The Grand Wash Cliffs mark the western boundary of the Grand Canyon. Here the canyon walls recede to form rolling hills.

The Esplanade, a flat expanse of red Supai slickrock, is a prominent feature in the area. The Supai sandstone is thicker and more weather resistant in the western part of the Canyon; as a result the rock layers above it have eroded, forming a platform between 2–6 miles wide. The Esplanade extends through 175 miles of the canyon to Lake Mead.

Evidence of volcanic activity is particularly visible in the western canyon from eruptions that occurred on the north rim of the Uinkaret Plateau and cascaded over the rim and into the canyon between 10,000 and 1.8 million years ago. More than 150 flows poured into the canyon forming a series of 13 major lava dams from 200 to more than 2,000 feet high and as much as 20 miles thick that once blocked the Colorado River and caused huge lakes to form in the Grand Canyon upstream. As the lakes filled they would have eventually overflowed the dams, creating large waterfalls that would have migrated headwards until the dams were destroyed. The remnants of several of these dams may be seen from the Esplanade at the Toroweap Overlook.

### *ROAD ACCESS*

**SOUTH RIM:** Hualapai Hilltop can be reached at the end of Indian Road 18, which is 68 miles north of Route 66 between Kingman and Seligman. Roads are paved the entire way.

**NORTH RIM:** The roads on the North Rim are remote and rugged in places. Be sure to carry water and supplies in your car, and to have a full tank of gas, a good spare tire (or two) and a shovel. The main access road to the western Canyon is from the Mt. Trumbull Road, which makes a big loop to the south between St. George and State Road 389 west of Fredonia. For the most part, this road is well graded and signed; however, it becomes muddy in places after rains and may be buried in snow during the winter months.

Roads that branch off from Mt. Trumbull Road are of variable quality, but many are not maintained and require high clearance at a minimum and perhaps 4WD depending on conditions. Many of these smaller roads also lack signage. It's worth the effort to obtain topographic maps for the driving route and to carry a GPS to track progress and assist with navigation to the trailheads.

### *SUPPLIES*

**SOUTH RIM:** The South Rim of Western Grand Canyon lies on tribal land owned by the Havasupai and Hualapai tribes and no supplies or services are offered. It's best to arrive prepared by stocking up ahead of time. Those coming from the east will find gas, a few restaurants and motels in the small town of Seligman. Flagstaff, to the east, offers a wide range of services. To the west, Kingman offers all of the amenities you would expect from a medium-sized town including gas, groceries, restaurants, and hotels. Within Havasu Canyon itself, the village of Supai has a small store, cafe, and lodge.

**NORTH RIM:** Those coming from the east will find basic services in the small town of Fredonia, AZ including a few small combination convenience store/gas stations where basic necessities may be purchased as well as a few restaurants. A short drive north



of Fredonia lies the medium-sized town of Kanab, Utah, which contains an outdoor gear retailer, gas, groceries, and a selection of restaurants and hotels. Those coming from the west can pick up supplies in the large town of St. George, Utah.

## CAMPING

**SOUTH RIM:** Camping in this region is limited due to the fact that the reservations that border the canyon on the South Rim are off limits to camping. There are a few commercial campgrounds in Seligman and Kingman. It may also be possible to camp on public lands around Kingman in areas such as the Cerbat, Hualapai or Wabayuma Mountains.

**NORTH RIM:** The area above the rim to the east of Kanab Creek is bordered by the Kaibab National Forest, which allows at-large camping throughout much of the forest. The area above the rim to the west of Kanab Creek outside of the Grand Canyon National Park boundary is administered by the BLM and is open to dispersed camping except where posted closed to camping.

Within GCNP there are ten primitive, first-come, first-served sites available near the rim at Toroweap. Sites may be full during spring and summer months, especially on weekends. Picnic tables, fire grates and composting toilets are provided, but no electricity or water is available.

## PERMITS

A permit from the National Park Service is required for camping within the boundaries of Grand Canyon National Park. Reservations are required in order to camp at Havasupai or to stay at their lodge. Other than Havasu Creek, the Havasupai do not appear to issue permits for hiking or camping elsewhere on tribal land. See the chapter on Permits, Fees and Regulations for more detailed permitting information.

## MANAGING AGENCIES

Bureau of Land Management - Arizona Strip Field Office

345 East Riverside Drive, St. George, UT 84790-6714

Telephone: (435) 688-3200

[http://www.blm.gov/az/st/en/fo/arizona\\_strip\\_field.html](http://www.blm.gov/az/st/en/fo/arizona_strip_field.html)

USDA Forest Service - North Kaibab Ranger District

430 South Main Street, PO Box 248, Fredonia, Arizona 86022

Telephone: (928) 643-7395

<http://www.fs.fed.us/r3/kai>

Grand Canyon National Park

P.O. Box 129, Grand Canyon, AZ 86023

Telephone: (928) 638-7888

<http://www.nps.gov/grca>

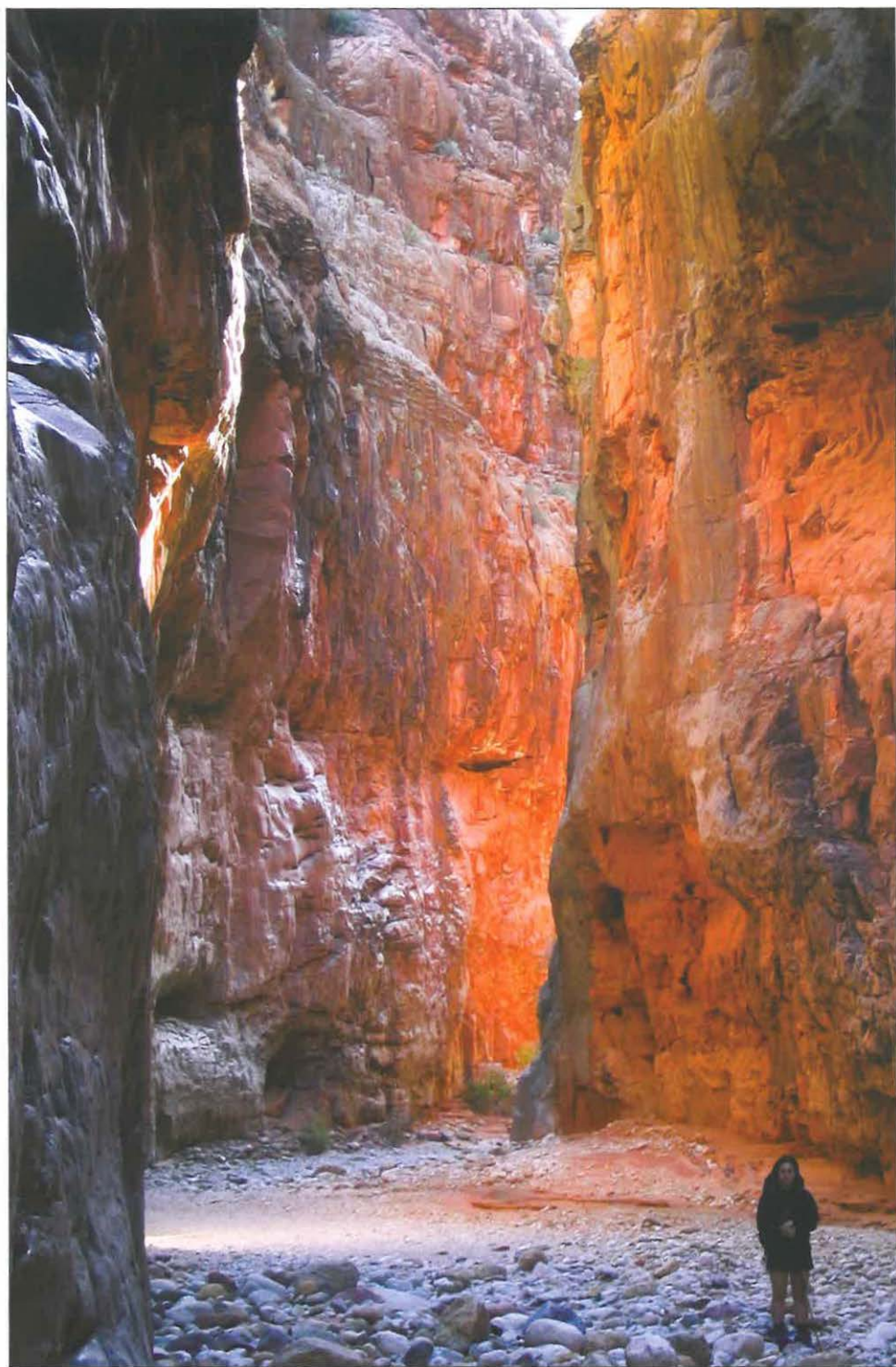
Havasupai Tourist Enterprises

P.O. Box 160

Supai, Arizona 86435

Camping Reservations: (928) 448-2121, (928) 448-2141, (928) 448-2174, or (928) 448-2180

<http://www.havasupaitribe.com/reservations.html>



*Jumpup Canyon*

## 51: Kanab Creek

**OVERVIEW:** A non-technical Grand Canyon backpacking trip that lacks big views and sweeping vistas, but features some equally beautiful and intimate canyons and grottos. The price of admission to this less visited area is paid in walking, jumping and hopping over many, many rocks.

Several entry routes are described. Eastern routes include Sowats Point descending the Jumpup-Nail Trail to Kwagunt Hollow, and from the Indian Hollow Trailhead descending Indian Hollow. Western Routes include rugged and difficult entries via the Flipoff Route, Scotty's Hollow Route and Kanab Point Route. These latter entries should only be attempted by experienced Grand Canyon hikers with off-trail experience.

Must see sites in Kanab include Showerbath Spring, Scotty's Hollow and Whispering Falls. Be sure to bring shoes that you don't mind getting wet, since you will be walking in water much of the time in Kanab Creek. On the positive side, finding drinking water is not a big problem on this hike, since Kanab Creek flows year round below the upper spring.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LA9

**REQUIRED GEAR:** Standard backpacking equipment.

**SPECIAL CONSIDERATIONS:** The Kanab drainage is very large and presents a flash flood risk; avoid the area if heavy rains are in the forecast. Intermittent water is available in Kwagunt Hollow and in potholes in Indian Hollow. A pool of varying quality can be found on canyon right in Jumpup Canyon at UTM: 12S 355633 mE, 4040705 mN, WGS84 Datum, a perennial pool may be found in a cleft in Kanab Creek about 20 minutes above the Jumpup Junction at UTM: 12S 353267 mE, 4039275 mN, WGS84 Datum. Perennial water is available below the spring in Kanab Creek, in Scotty's Hollow and at the Colorado River. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 1A VI	<b>Distance:</b> 43.3 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 6,140 – 1,910 ft.
<b>Time Needed:</b> 4 – 6 days	<b>Best Time of Year:</b> Spring, Summer, Fall
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Fishtail Mesa, Jumpup Point, Kanab Point 7.5	<b>Navigation:</b> Easy

### DRIVING DIRECTIONS

**SOWATS POINT AND INDIAN HOLLOW:** From Flagstaff, drive north on Highway 89. Turn left on Highway 89A and drive to Jacob Lake. Travel south on Highway 67 for 1/4 mile then turn right (west) on Forest Road (FR) #461 towards the RV Campground. Continue west on FR #461 (stay to the left at the 4.5-mile point where FR #264 branches right) and stay straight 0.8 miles later when it intersects FR #462. Follow FR #462 3.0 miles to FR #22.

**Sowats Point:** Preferred Route (shortest and easiest): Turn left (south) on FR #22 and drive 11.7 miles (~5 miles beyond Big Springs), then turn right (west) onto FR #425



headed towards Crazy Jug Point and Monument Point. Drive approximately 8 miles and turn right onto FR #233. Follow FR#233 9 miles to the Jumpup-Nail Trailhead and parking area, which is on the left.

Alternate Route (if the above is snowed in, these roads accumulate less snow): Turn right (south) on FR #22. After 8.6 miles, turn right (west) onto FR #447 and drive 3.7 miles to the end. Turn left (south) onto FR #427 and follow it 7.2 miles to where it intersects FR #425 at a "T" junction. Turn right (west) on FR #425 and follow it 1.7 miles and turn right onto FR #233. Follow FR#233 9 miles to the Jumpup-Nail Trailhead and parking area, which is on the left.

**Indian Hollow:** Turn left on FR #22 and drive for 11.7 miles (~5 miles beyond Big Springs) then turn right (west) on FR #425 headed towards Crazy Jug Point and Monument Point. Follow this road 8.4 miles and turn right on FR #232 and follow it 5 miles to the Indian Hollow Campground and Trailhead.

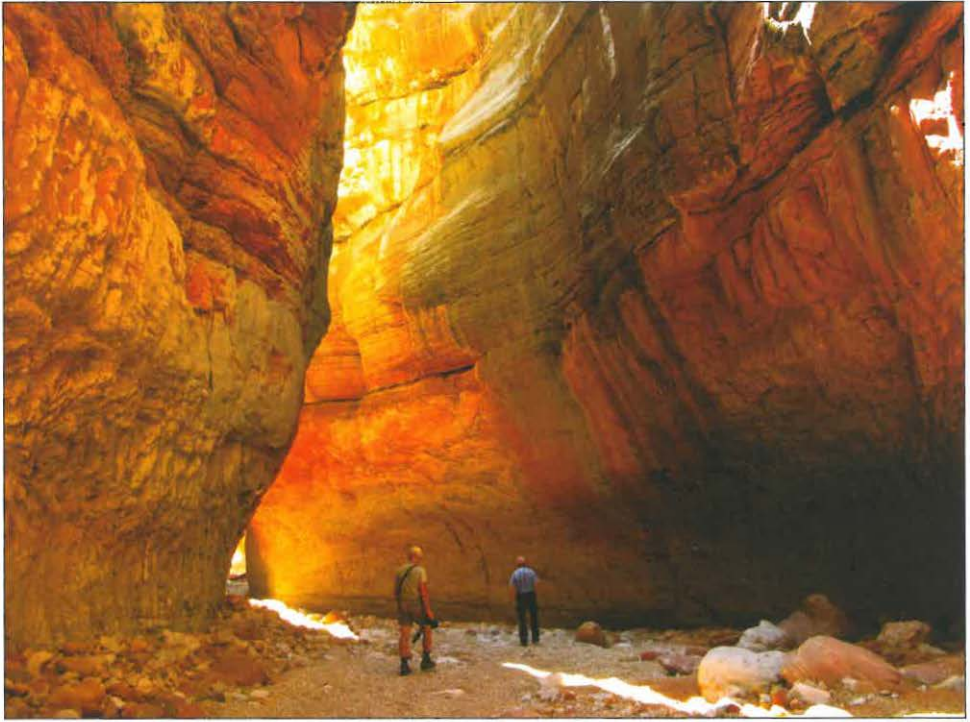
**FLIPOFF, SCOTTY'S HOLLOW AND KANAB POINT TRAILHEADS:** From the small town of Fredonia, drive west on State Road 389 for 8.3 miles to between mileposts 25 and 24. Turn left (south) onto Mt. Trumbull Road. Zero your odometer and drive 22.7 miles on this well graded dirt road to a fork, which branches left to Hack Canyon; stay to the right. At the 27.3-mile point, turn left at the unsigned junction onto Forest Road 1058. About 2 miles later, you'll pass a sign pointing left for Nate's Tank, stay straight heading towards the Kanab Creek Overlook. At the 33.1-mile point, follow the sign pointing straight towards Big Jackson Reservoir, Robinson Tank and Merle Findlay Tank. At mile 34.7, you'll arrive at a "T" junction with a corral on the right, turn right heading towards the Merle Findlay Tank passing Big Jackson Tank as you do so. At mile 35.4, stay straight towards Merle Findlay Tank, which you'll pass at the 36.8-mile point. A half mile later, at mile 37.3, the main road continues straight with a somewhat less traveled road branching right.

**Flipoff Trailhead:** Stay straight on the main road to mile point 41.3, where you'll turn right to pass through a fence line. At mile 42.0, the road forks; turn right, then stay straight to pass through another fence line 0.1 miles later, beyond which the road becomes considerably rougher. The road forks again at mile 43.5, stay to the left and drive another 0.9 miles (52.4) to park at a nondescript spot among the junipers.

**Scotty's Hollow and Kanab Point Trailheads:** Stay to the right where the road forks, turning onto a less traveled track. Remain to the left on the main road at miles 38.3, 39.0, and 40.0 to pass a tank and corral at the 40.7-mile point. At mile 41.5 turn right, and drive another 2.2 miles to where the road forks (43.7). Turn left at the fork and at mile 44.4 you'll cross a cattle guard and sign marking the boundary of GCNP. At mile point 44.9, you'll reach a "T" junction with the rim road. Left will bring you to the Scotty's Hollow Trailhead and right to Kanab Point.

**Scotty's Hollow Trailhead:** Turn left (north) and drive 1 mile along the narrow winding road (dodging the pine trees as you go) to a small pull off on the left at UTM: 12S 348193 mE, 4033316 mN, WGS84 Datum.

**Kanab Point Trailhead:** Turn right and follow the road as it winds its way out onto Kanab Point. At the 48.4-mile point, the road branches with the right branch traveling out to a scenic overlook where the Colorado River may be seen. We'll proceed left instead and drive a few tenths of a mile farther to the end of the road at Kanab Point at UTM: 12S 351993 mE, 4030439 mN, WGS84 Datum.



*Jumpup Canyon*



*The formation for which Filipoff Canyon is inexplicably named*

## TRIP DESCRIPTIONS

**SOWATS POINT:** From the Jumpup-Nail Trailhead, follow the well trodden path past the signpost down towards the canyon rim. You'll pass a trail register, then a few minutes later, you'll pass a sign indicating you are entering the Kanab Creek Wilderness. A steeper descent brings you to the canyon rim, which, surprisingly, isn't terribly scenic. After traversing the canyon rim north a short distance, the path descends very steeply all the way down to the Esplanade far below. A few minutes after passing a prominent stand of cottonwood trees on the left, look for a cairn and use trail that branches left to enter the drainage of Kwagunt Hollow.

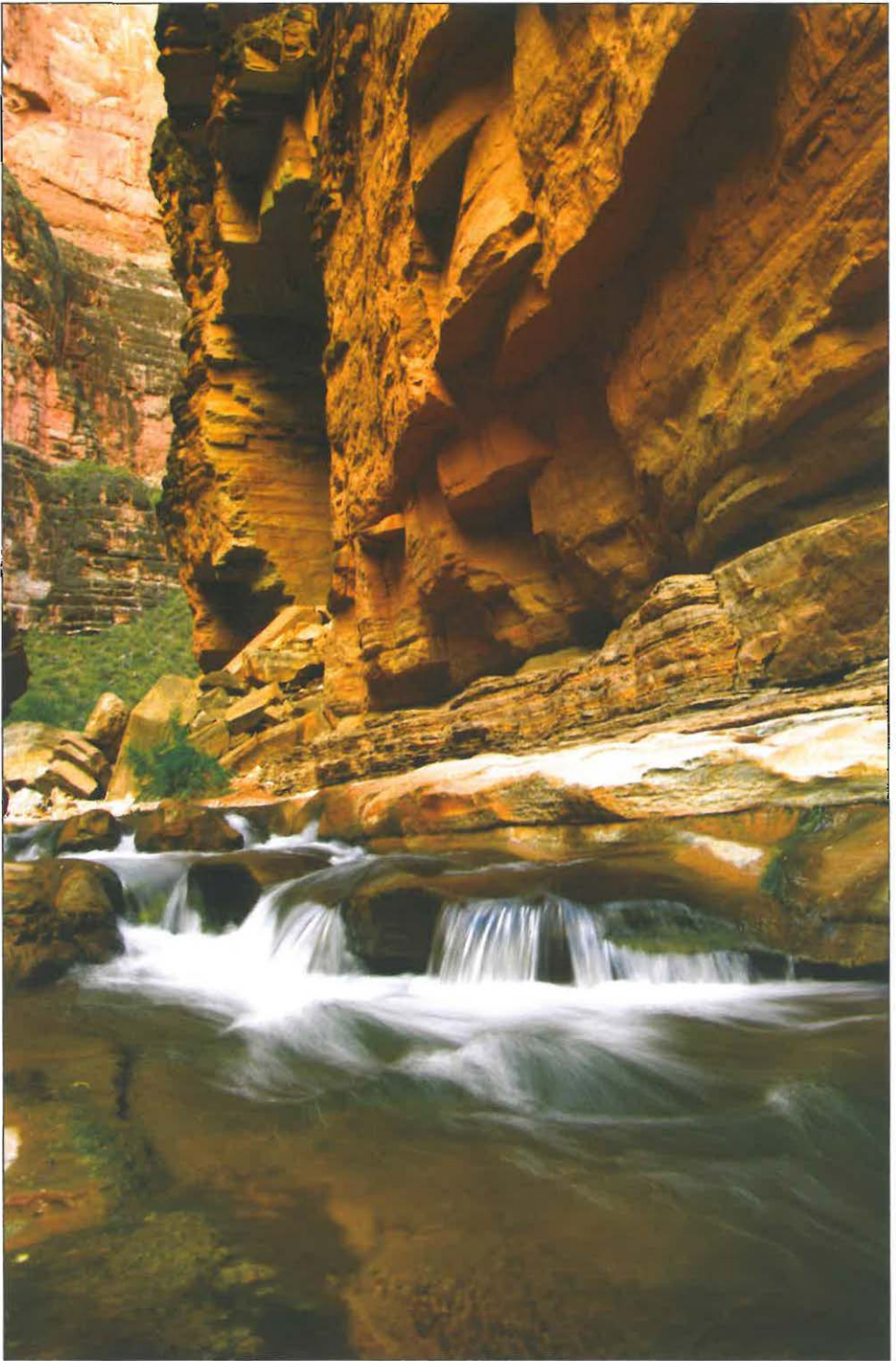
Simply walk down the streambed of Kwagunt Hollow, which reportedly contains a trickling stream much of the year and was flowing nicely when I was here. To descend the canyon you will have to negotiate several sections with large boulders as well as two pour-offs, which can both be bypassed on rough use trails on canyon left (the left side of the canyon when facing downstream). Eventually, the canyon will level off as it reaches the junction with Jumpup Canyon. Turn left and begin walking down Jumpup Canyon, which soon narrows, becoming deeper and prettier as you proceed. After ~20 minutes of walking, a prominent drainage will enter from canyon left—this is Indian Hollow. Those in need of water may find a pool (intermittent) at the base of a chockstone a short 15-minute walk up this canyon.

**INDIAN HOLLOW:** From the Indian Hollow Trailhead, simply walk into the shallow drainage that begins at the end of the road. The route is forested at first then enters the chaparral scrub as the drainage cuts into the Kaibab and Toroweap Limestone. Look for a faint use trail on one side or the other, which makes for easier walking and bypasses some of the brush.

Eventually, the drainage enters the Coconino Sandstone and a series of drop-offs. All may be negotiated without rope, but will be made easier by passing or lowering packs. Walk around the first drop-off on the left to locate a crack and ledges that allow access to the canyon bottom. The second drop should be bypassed on the right and downclimbed at a vertical crack featuring good hand and foot holds. Once down, stay on the bench to the right of the drainage for a short distance until you can locate another series of ledges that allow access to the floor of the canyon.

The route winds down and around through a steep boulder-filled ravine before entering the Hermit Shale, at which point the canyon becomes wider and the walking easier (though it remains somewhat brushy). Continue down through the Hermit into the Supai where you may find water in a few small potholes. Shortly after entering the Supai, you'll arrive at a large pour-off that can be bypassed by downclimbing on the right. Continue down the wash and after some hiking (and immediately after walking around a fallen dead tree) you'll arrive at a junction with a fork of the canyon, which enters from the right (stay left). After a bit more hiking you'll reach a spot where a drainage enters from the left and shortly thereafter the canyon enters a short section of Supai narrows. You can either go straight through the narrows (getting your feet wet) or bypass them by climbing around and down on the right. Just below the narrows a shallow drainage enters from the left. Below, the hiking is mostly easy walking





*Kanab Creek*

interspersed with a few ledges that may be bypassed on one side or the other, eventually passing a large drainage entering from the right that Steck refers to as Ojojojo Canyon. Reliable water may reportedly be found a short distance up this drainage.

About 15 minutes above the confluence with Jumpup Canyon, you'll arrive at a large chockstone, which may or may not have a large pool requiring a short swim at its base. The chockstone is not terribly difficult to downclimb, though passing packs is recommended. If floating your packs across the pool, your gear will need to be in drybags to keep critical items dry; otherwise, if carrying a rope, you could attempt to zip-line them across. Steck describes a way to bypass the pool on one side or the other by following a bench and downclimbing, but as the pool was dry when I was here, I had no cause to identify this route. A short walk through some nice narrows will bring you to the confluence with Jumpup Canyon. Turn left to descend Jumpup.

**JUMPUP AND KANAB:** Continuing down Jumpup, the walking is easy and the scenery pleasant as you pass through more deep narrows to soon reach the junction with Kanab Creek (there are several dry campsites on benches in this area). Turn left and walk down Kanab, which is wide and uninteresting at first. If you haven't gotten used to it by this point, it's all rock-hopping all the time as you wind your way downstream (with a lack of prominent landmarks, I found it useful to carry the topographic map in my hand to follow the bends in the canyon so I could keep track of where I was). About an hour or so of walking and several twists and turns later, you'll reach the point in the map marked "spring". Water appears at the surface of the canyon floor and you will see evidence of beaver activity in the area. The stream is small enough and rocks plentiful enough that you will have no trouble keeping your feet dry at first; however, just prior to reaching Showerbath Spring, water becomes more prevalent and you'll be forced to simply wade through the creek.

Showerbath Spring is one of the highlights of the trip and consists of a pretty hanging garden of monkey flowers and ferns with water pouring through the leaves. There is a small campsite in front of the spring. About an hour of walking below Showerbath, you'll catch sight of Scotty's Castle. This landmark is a good one to notice since it marks Scotty's Hollow, a side canyon that enters Kanab on the right (west). Scotty's Hollow is well worth a side trip and consists of a very pretty canyon and several nice waterfalls. To proceed upstream, you'll have to negotiate several climbs and wade through pools up to chest deep. This canyon is described in more detail in the next hike.

Continuing down Kanab Creek from Scotty's Hollow, it's more of the same—rock-hopping and wading, except with the added difficulty of two sections of canyon that are filled with very large boulders. These sections will take additional time to negotiate since you'll have to route-find and climb around and through the big rocks. The next scenic side trip lies about 3 hours walking distance below Scotty's Hollow.

After reaching a section of canyon where some longer stretches of slickrock shelf appear underfoot, look for a side drainage that enters Kanab from the left (east) at UTM: 12S 353975 mE, 4032456 mN, WGS84 Datum. A 15-minute walk up this drainage, followed by a short traverse and a small climb, will bring you to a lovely

grotto with a small pool fed by Whispering Falls. On hot summer days, this spot is a popular destination for river runners.

From Whispering Falls, it will take about 2.5 hours of steady walking to reach the mouth of Kanab, which features a muddy, uninteresting delta, a few rapids and a couple decent campsites that lie atop the grassy knoll on the right side of the canyon.

When ready, return the way you came. If exiting Indian Hollow, you'll need to stay to the right (facing upcanyon) to enter Jumpup Canyon, then right again about an hour later to enter Indian Hollow. At the first junction in Indian Hollow, stay to the right. Later, stay to the left where a drainage enters in the Supai layer, then left again a short distance after exiting the Supai narrows. Finally, stay to the right (proceeding around a fallen tree) where the canyon forks to eventually climb up and out of the Supai. In the upper reaches of the canyon, after climbing up through the Hermit and Coconino layers, you'll want to stay to the right following the footprints where the canyon branches in the Kaibab/Toroweap.

**FLIPOFF CANYON ROUTE:** From the nondescript car park, hike east a short distance to the canyon's rim near UTM: 12S 349801 mE, 4039026 mN, WGS84 Datum to identify a few cairns marking the entry point. Some climbing is required to negotiate a small cliff in the Kaibab to reach the top of a long, talus slope. Once on the slope, simply head straight down. Soon you'll catch sight of the formation in the distance to the left for which the route is named. The drainage of Flipoff Canyon may also be seen directly below. The route descends through the Toroweap to the Coconino where you'll encounter a 20-foot downclimb to descend a vertical cliff. The climb offers decent hand and foot holds, but passing packs past this obstacle is highly recommended. Below the cliff, the route is clear all the way down the slope the remainder of the way to the Esplanade and the top of the Supai. A description of Flipoff Canyon is found in Hike 53.

**SCOTTY'S HOLLOW ROUTE:** For the experienced backcountry hiker, a direct, if rugged, route exists that comes down off the rim directly above the canyon. Beginning at the Scotty's Hollow Trailhead, hike east to the rim of the Canyon and start of the route at UTM: 12S 348299 mE, 4033399 mN, WGS84 Datum. Follow the footprints to the southeast as they descend through an upper break in the Kaibab Limestone, then to the northeast (left) as they contour diagonally down through several more breaks in the limestone cliffs to eventually gain the top of a steep talus slope near UTM: 12S 348420 mE, 4033650 mN, WGS84 Datum. Though the route-finding is easy from here (simply proceed down the slope), the footing is less so. Use care as you descend, particularly on the higher sections of the slope, since it is very steep and unstable. The footing becomes somewhat safer as you descend and a more distinct trail begins to form. At the bottom of the slope, travel to the right to enter any one of the minor drainages that form in the Supai. All of these drainages lead into the main canyon of Scotty's Hollow.

Once in the main canyon, simply proceed downstream. There are two large pour-offs in the upper Supai, each of which may be bypassed with varying degrees of difficulty by climbing around and down on the right (facing downcanyon). Just



before arriving at the Redwall, there is one additional pour-off that is best bypassed by thrashing through the brush on the left. Eventually, after some rock-hopping and climbing around on boulders, you will reach the start of the Redwall in the South Fork of Scotty's Hollow. If you'd like to do the technical descent of the North Fork, simply leave the canyon bottom to the left (north) and follow a bighorn trail around on top of the Redwall to the head of this canyon at UTM: 12S 350413 mE, 4035500 mN, WGS84 Datum. Those planning to visit Kanab Two will hike the top of the Redwall to the right (south). A description of Scotty's Hollow is found in Hike 53.

**KANAB POINT ROUTE:** From Kanab Point, pick up the use trail that begins in the gully on the north side of the parking area at UTM: 12S 351895 mE, 4030449 mN, WGS84 Datum. The path drops down through the upper Kaibab Limestone then begins contouring along the slope in a northwesterly direction between limestone layers for some distance along a moderately distinct trail to eventually arrive at a break that will allow you to get through the remaining Toroweap. The path then continues a short distance to the northwest then bends right to descend through the Coconino to arrive at the top of a talus slope. Although the trail fades at this point, your goal is simply to choose the easiest route down (avoiding the brush in the gully bottoms where possible).

## *AUTHOR'S RATING*

**Kanab Creek:** ★★★

**Jumpup Canyon:** ★★★★★

**Indian Hollow:** ★★

Kanab Creek is a worthy object of a hike in itself or could be combined with other routes to make a larger loop. Because elevation changes are fairly gradual, it's also possible to cover distances more efficiently than some other off-trail Grand Canyon hikes.



*Lower Kanab Canyon*

## 52: Kanab Creek - Eastern Tributaries

**OVERVIEW:** This hike covers the three un-named tributaries that drain into the eastern side of lower Kanab Creek, which may be accessed from Indian Hollow. They are (in order from north to south), Rattlesnake Canyon, Kirk's Chasm and Whispering Falls Canyon. Each is technical and though some old bolts are present, they can be done entirely with natural anchors. For those in the area who happen to have a few hours to kill, two mini-slots above the Kanab/Jumpup junction have also been included.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LA9

**REQUIRED GEAR:** **Whispering Falls Canyon** and **Kirk's Chasm** requires 2x200' ropes; **Rattlesnake Canyon** requires 1x200' ropes (or 2x100' ropes); **Kanab Minus One Canyon** requires 2x150' ropes; **Kanab Minus Two Canyon** requires 2x200' ropes. In addition, you'll need 30'–60' webbing and 2–6 rap rings per canyon, harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit will be required after rains or during cooler weather. A GPS will be valuable for navigational assistance.

**SPECIAL CONSIDERATIONS:** The Kanab drainage is very large and presents a flash flood risk; avoid the area if heavy rains are in the forecast. Intermittent water is available in Kwagunt Hollow and in potholes in Indian Hollow. A pool of varying quality can be found on canyon right in Jumpup Canyon at UTM: 12S 355633 mE, 4040705 mN, WGS84 Datum. Perennial water is available below the spring in Kanab Creek and in each of the tributary canyons described (except Kanab Minus One and Two). These canyons require good natural anchor skills. All members of the group should possess good climbing skills. Camping gear must be kept dry through the pools in these canyons. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> See Trip Description	<b>Distance:</b> 25 – 70 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 6,230 – 2,220 ft.
<b>Time Needed:</b> 4 – 8 days	<b>Best Time of Year:</b> Spring, Summer, Fall
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Fishtail Mesa, Jumpup Point, Kanab Point 7.5	<b>Navigation:</b> Difficult

### DRIVING DIRECTIONS

See the Kanab Creek (Hike 51) description for driving directions.

### TRIP DESCRIPTION

**APPROACH – RATTLESNAKE CANYON, KIRK'S CHASM AND WHISPERING FALLS CANYON:** From the Indian Hollow Trailhead, hike down the Indian Hollow drainage following the description found in Hike 51 until you reach the Supai layer. Prior to, or just after entering the Supai, climb out of the canyon to the left (south) near UTM: 12S 360414 mE, 4036827 mN, WGS84 Datum and begin contouring to the east somewhere between the 4,400 and 4,600 foot elevation marks. Unfortunately, the

Esplanade in this area does not have any of the nice slickrock benches found elsewhere in the Canyon. Instead, there are multiple Supai ledges, boulders, and gullies that you'll have to route-find up, down, around and through. The hiking is strenuous, brushy and not particularly enjoyable.

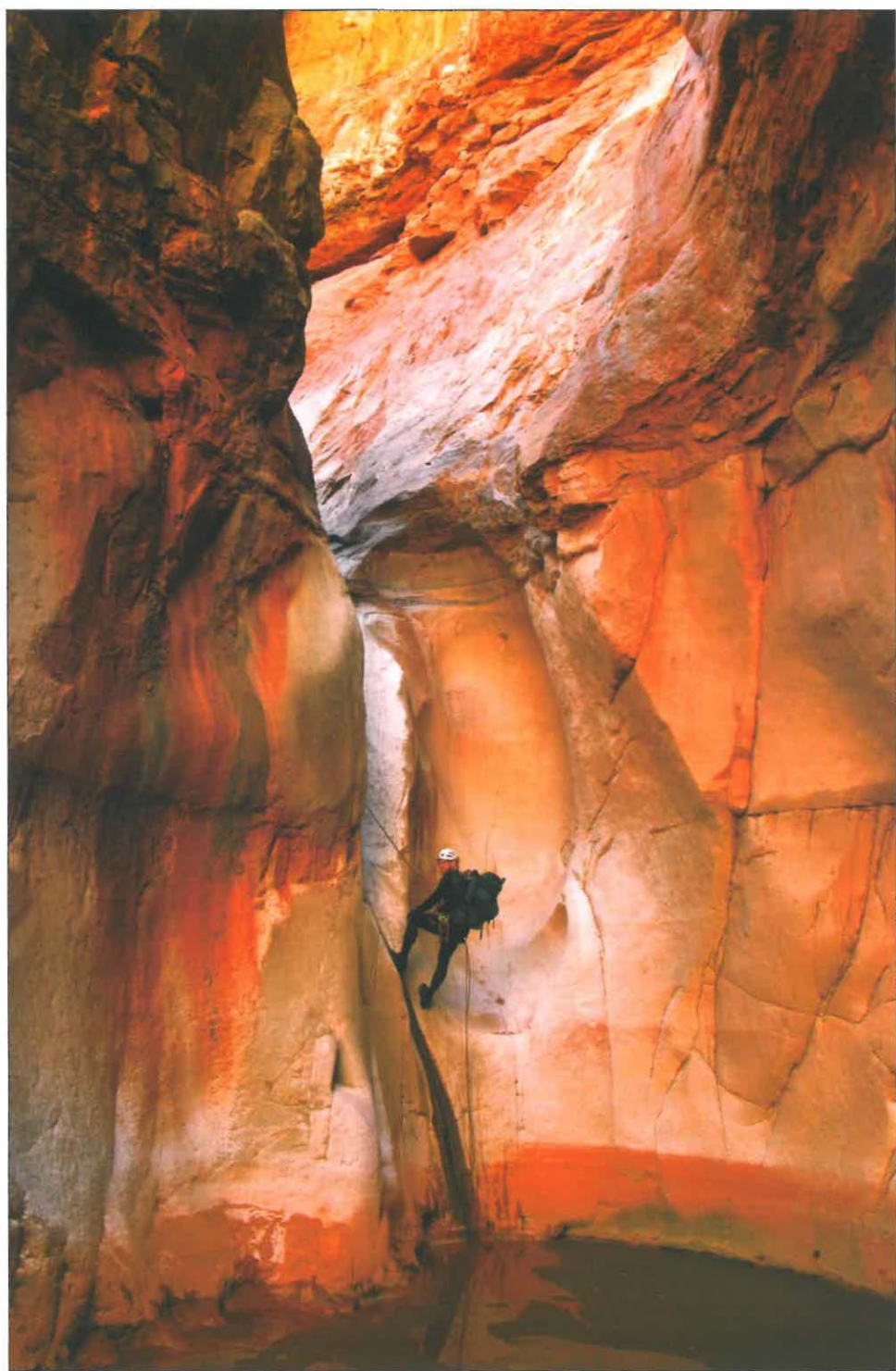
At first, you'll want to hike in an easterly direction using the visual milestone of Racetrack Knoll as a guide. Prior to reaching Racetrack Knoll, you'll round a promontory of Fishtail Mesa and turn to the left to begin hiking in a southerly direction. Fortunately, Hermit Shale appears underfoot at this point and the brush abates, making the walking easier. Continue plodding southwards making your way around any ravines that present themselves to eventually make your way down into the head of the tributary canyon of your choosing. In order of appearance (from north to south), they are: Rattlesnake Canyon - UTM: 12S 357912 mE, 4036547 mN, WGS84 Datum, Kirk's Chasm - UTM: 12S 357760 mE, 4035324 mN, WGS84 Datum, and Whispering Falls Canyon - UTM: 12S 357778 mE, 4033476 mN, WGS84 Datum. A GPS will be very helpful in identification of the correct drainage.

**RATTLESNAKE CANYON (RATING 3B VI):** From the head of Rattlesnake Canyon at UTM: 12S 357912 mE, 4036547 mN, WGS84 Datum, walk down to enter the Supai Sandstone. Some minor downclimbs are required to negotiate a few small ledges as well as a larger pour-off that can be bypassed on the right. Climb down, around and through some large boulders to eventually make your way to the Redwall and the first rappel, which is 60 feet in length from a rock wedged in a crack on canyon right. The canyon begins to form a shallow slot and soon arrives at rappel #2, which is a 15-footer from another rock wedged in a crack on the right. Rappel #3 is 100 feet in length from a pinch point on the right formed by a chockstone into a deep pool. Stay on rope to continue the rappel out the other side to a chockstone from which a new anchor can be rigged for a 50-foot rappel into another pool.

The canyon winds its way through a pretty corridor to arrive at rappel #5, which is 30 feet in length into a colorful alcove and pool. The great scenery continues as you pass through some nice hallways and over boulders to arrive at rappel #6, which is 60 feet into a pool from webbing wrapped around a boulder up on a shelf on the right. Below the rappel, a short hike will bring you to the confluence with Kanab Creek.

**KIRK'S CHASM (RATING 3B VI):** From the head of Kirk's Chasm at UTM: 12S 357760 mE, 4035324 mN, WGS84 Datum, simply walk down through the Supai Sandstone layer, which features only a single obstacle that can be bypassed by good climbers on the left. After some hiking, you'll eventually reach the Redwall Limestone, which begins with a downclimb, followed by a 20-foot rappel down a chute, or you can bypass this obstacle by climbing down a series of ledges on the right. After a few more downclimbs, you'll arrive at a larger drop that can be bypassed by climbing through some brush at a large tree on the right. A short distance later, you'll reach a chockstone with an old bolt and hanger on top that has been hammered flat. You can either rappel 25 feet from the bolt, or downclimb through a hole on the right (a spot or belay may be desirable).

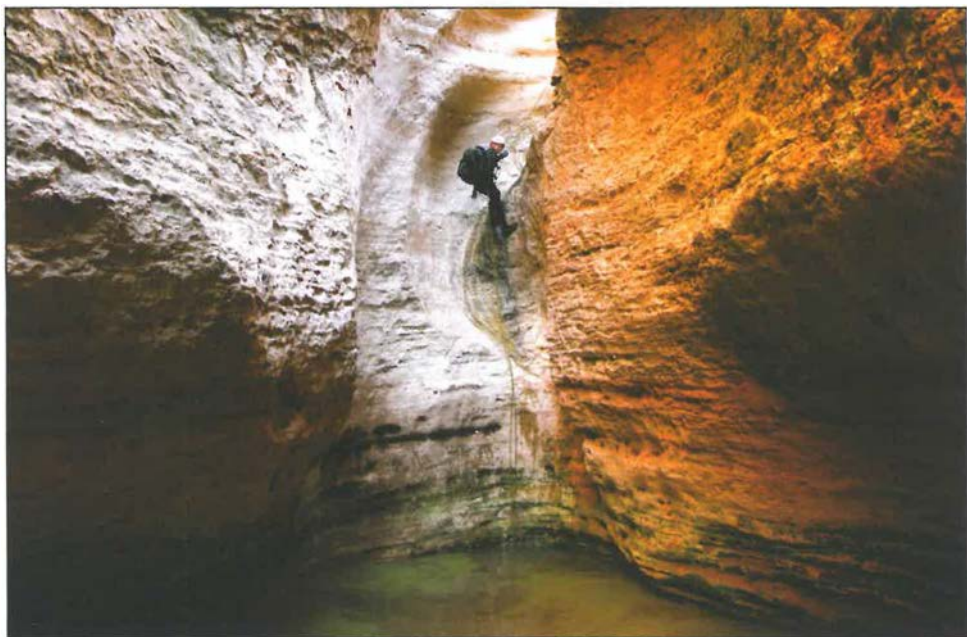




*Rattlesnake Canyon*

You will now find yourself in a beautiful slot canyon with some shallow pools of clear water. A short hike downcanyon will bring you to a 15-foot drop, which we descended using the last-man-at-risk technique. This is soon followed by a 175-foot, 3-stage rappel using a pinch point on the left as an anchor. Each of these drops is into a sizable pool. Below, the canyon widens somewhat as travel alternates between fairly easy walking interspersed with a few downclimbs at boulders. After some hiking, the canyon narrows again and you'll be required to perform a handful of deep wades and/or short swims to negotiate some large pools. There are also two moderately sized downclimbs in this section that require either a belay from above or spot from below. Following some boulder hopping, the canyon begins to widen and soon thereafter you'll arrive at the junction with Kanab Creek.

**WHISPERING FALLS CANYON (RATING 3B VI):** From the head of the main fork of Whispering Falls Canyon at UTM: 12S 357778 mE, 4033476 mN, WGS84 Datum, begin hiking down the drainage to shortly enter the Supai Sandstone. Soon, you'll arrive at a double drop that requires a 100-foot rappel. A rock wedged under a shelf on the right may be used as an anchor. This is immediately followed by a 10-foot nuisance drop that we rappelled using a person as an anchor, this individual then downclimbed at a corner located a short distance along a bench on the left with a spot from below (last-man-at-risk). A short distance downcanyon is a 40-foot drop that can be rappelled using a sturdy cottonwood tree a short distance back from the drop as an anchor. Your final obstacle in the Supai consists of a series of ledges ranging in height from 5–10 feet. It's possible for good climbers to zigzag through the layers to descend by downclimbing or jumping at a point that poses the least risk; however, most will probably prefer a hand-line. The final ledge is the largest and may be bypassed on the right returning to the canyon bottom via a steep talus slope.



*Another view in Rattlesnake Canyon*



The walking becomes easier below the ledges and after traveling a short distance you'll arrive at the head of the Redwall Limestone, which, after a few minor downclimbs, forms a 50-foot drop-off. Though this drop is not particularly steep, it is wet and slippery, so is probably best rappelled using either an old bolt that has been pounded flat or a rock wedged under a ledge on the right a short distance back from the drop as an anchor. Following some easy walking through shallow narrows, you'll reach a series of drops into a very deep and narrow sheer-walled gorge. Complete a few minor downclimbs to arrive at a triple drop, which can be completed as a single 150-foot rappel using a pinch point formed by a chockstone at the top as the anchor. The first of the three drops passes through a deep pool requiring a short swim. Immediately below lies a 15-foot nuisance rappel using a pile of rocks as an anchor. The canyon widens somewhat, but remains quite pleasant as you descend through scenic narrows. Just before arriving at a junction with the right fork of the canyon you'll come to the final rappel in the Redwall, which is 25 feet in length using a boulder or pinch point at the top as an anchor. Those looking for water may find some clear pools a short distance up the right fork.

**Whispering Falls Sneak Route:** River runners and backpackers hiking in Kanab Creek can see the best part of Whispering Falls Canyon, without all of the effort required to approach the drainage from above, via a sneak route that begins in Kanab a short distance above the mouth of Whispering Falls where the creek makes a bend at UTM: 12S 353838 mE, 4032737 mN, WGS84 Datum. Though not effortless, the route could not be more straightforward. From the point described above, identify an obvious rockslide that climbs steeply all the way up to a wide bench high in the Muav. Climb up this rocky slope, using care the higher you go on the loose dirt and rock. Work your way to the right in the upper reaches to eventually gain the top of the bench, which features a moderately



*The sneak route to Whispering Falls*



distinct trail made by bighorn sheep and the few hikers that know about the route. Follow the bench to the right (south) as it heads down Kanab, then bends in a counterclockwise direction to enter Whispering Falls Canyon. Continue along the bench upcanyon to a point where the Muav on your right diminishes enough that you can work your way down into the bed of the canyon.

**Lower Whispering Falls Canyon:** The canyon becomes wider below the confluence and for some distance the walking becomes flat and easy with a scattering of chockstone downclimbs. Eventually, you'll enter the Temple Butte Limestone where the canyon alternately narrows and widens requiring more hiking and downclimbing until you arrive at a large chockstone that requires a 20-foot rappel using a pinch point on the right as an anchor. Below is an 80-foot rappel from a tree on the right. There is a small spring at the base of this rappel that provides a good source of water, though you'll need a cup to scoop it from a shallow puddle. A short hike will bring you to the final rappel down Whispering Falls. The rappel is 170 feet in length from two old bolts located on a ledge a short distance down from the top of the drop on the right. Alternately, if you do not wish to use these old bolts and you have enough rope, you can rappel 250 feet directly down the falls from a tree on the left. The rappel ends in a beautiful grotto in the Muav Limestone and a deep, green-tinged pool. After retrieving your rope, you may remove your harness for the 15 minute hike downcanyon to the confluence with Kanab Creek.

Turn right for the long hike up Kanab Creek. Along the way, you will pass the mouths of Kanab Zero, Kanab One, Kanab Two and Scotty's Hollow, which enters from the left (facing upcanyon), followed by Kirk's Chasm and Rattlesnake Canyon, which enter from the right. When ready, retrace your steps up Jumpup Canyon and Indian Hollow to the rim and your vehicle.

**KANAB MINI-SLOTS (RATING 3A VI):** These two small Kanab tributaries are located above the Kanab/Jumpup junction and may be accessed via the Flipoff Route or from below by hiking up Kanab from the Jumpup junction (see Hikes 51 and 53).

From the mouth of Flipoff Canyon at UTM: 12S 352555 mE, 4040377 mN, WGS84 Datum, walk straight across Kanab Creek and climb up and out of the canyon on the east side. Once on top of the Redwall, simply contour along the top to the right (south) to reach these small canyons. Kanab Minus One is the first small drainage encountered at UTM: 12S 353245 mE, 4040162 mN, WGS84 Datum. Kanab Minus Two is the second at UTM: 12S 353478 mE, 4039836 mN, WGS84 Datum.

**Kanab Minus One Canyon:** The canyon begins with a few downclimbs in a shallow and somewhat brushy slot. Soon you'll reach the first rappel, which is 40 feet in length using a tree at the top as an anchor. A short distance below you'll encounter a fairly deep pothole followed by a 120-foot rappel that can be rigged from a natural arch located on the downstream side of the hole.

**Kanab Minus Two Canyon:** Similarly to the above, the canyon begins with a few downclimbs in a shallow and somewhat brushy slot. It ends shortly thereafter in a surprisingly pretty 180-foot rappel using a sling around a chockstone at the top of the drop as an anchor. A large pothole at the base of the drop may hold water for long periods.

## AUTHOR'S RATING

Whispering Falls Canyon: ★★★★★      Kanab Mini-Slots: ★★

Kirk's Chasm and Rattlesnake Canyon: ★★★★★

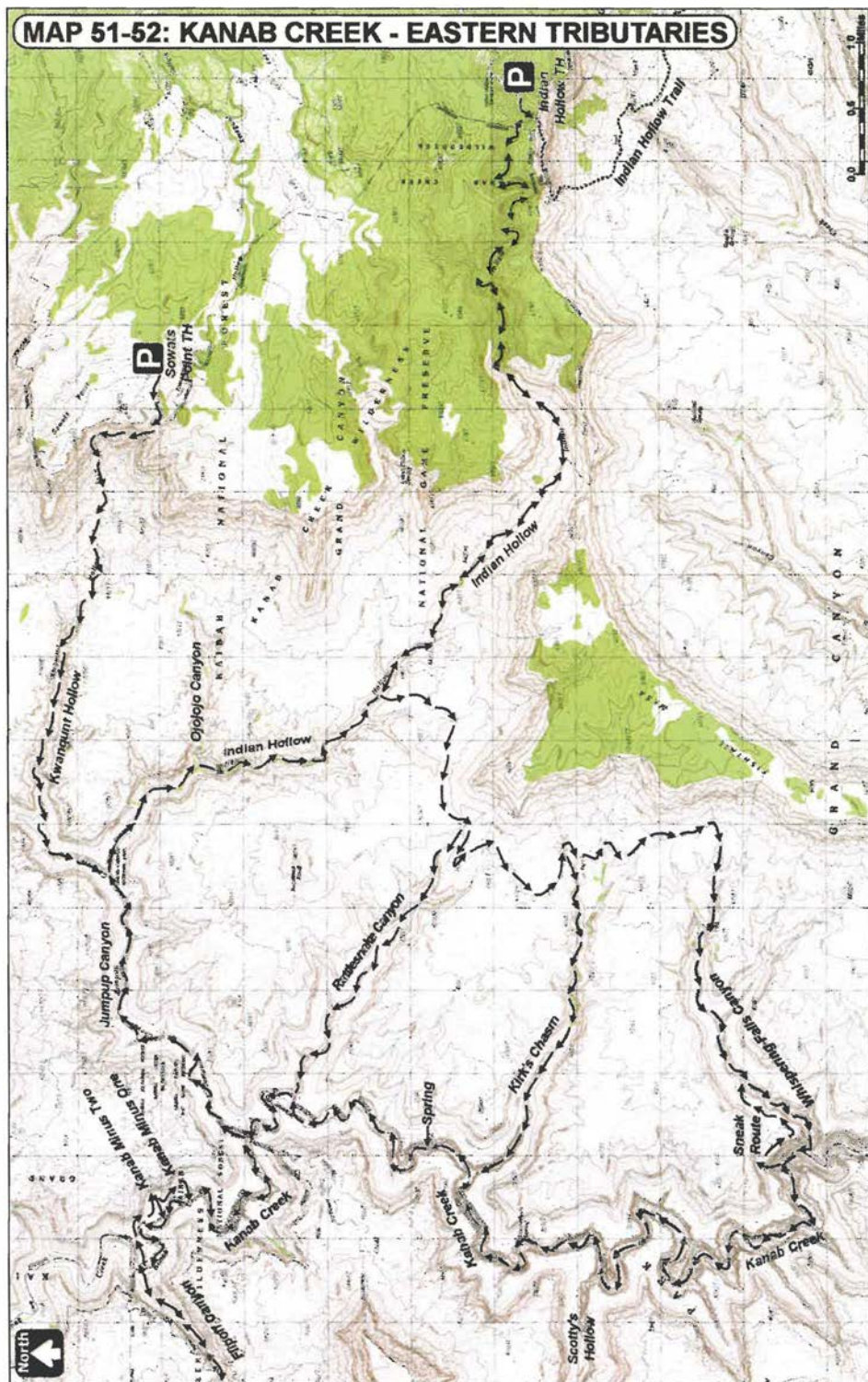
Those planning to spend some time in the area can see all of the canyons described by simply looping around and around. I completed the canyons with a group of 5 as a 7-day trip setting up a base camp under a Supai ledge in Indian Hollow. From this base, we completed Whispering Falls Canyon as a 3-day loop, then Kirk's Chasm as a 2-day loop and finally Rattlesnake Canyon as a long dayhike. Be aware that we hiked for 11 hours on four of these days; some may wish to have a less aggressive schedule.



*The final rappel into the grotto at the base of Whispering Falls*



## MAP 51-52: KANAB CREEK - EASTERN TRIBUTARIES

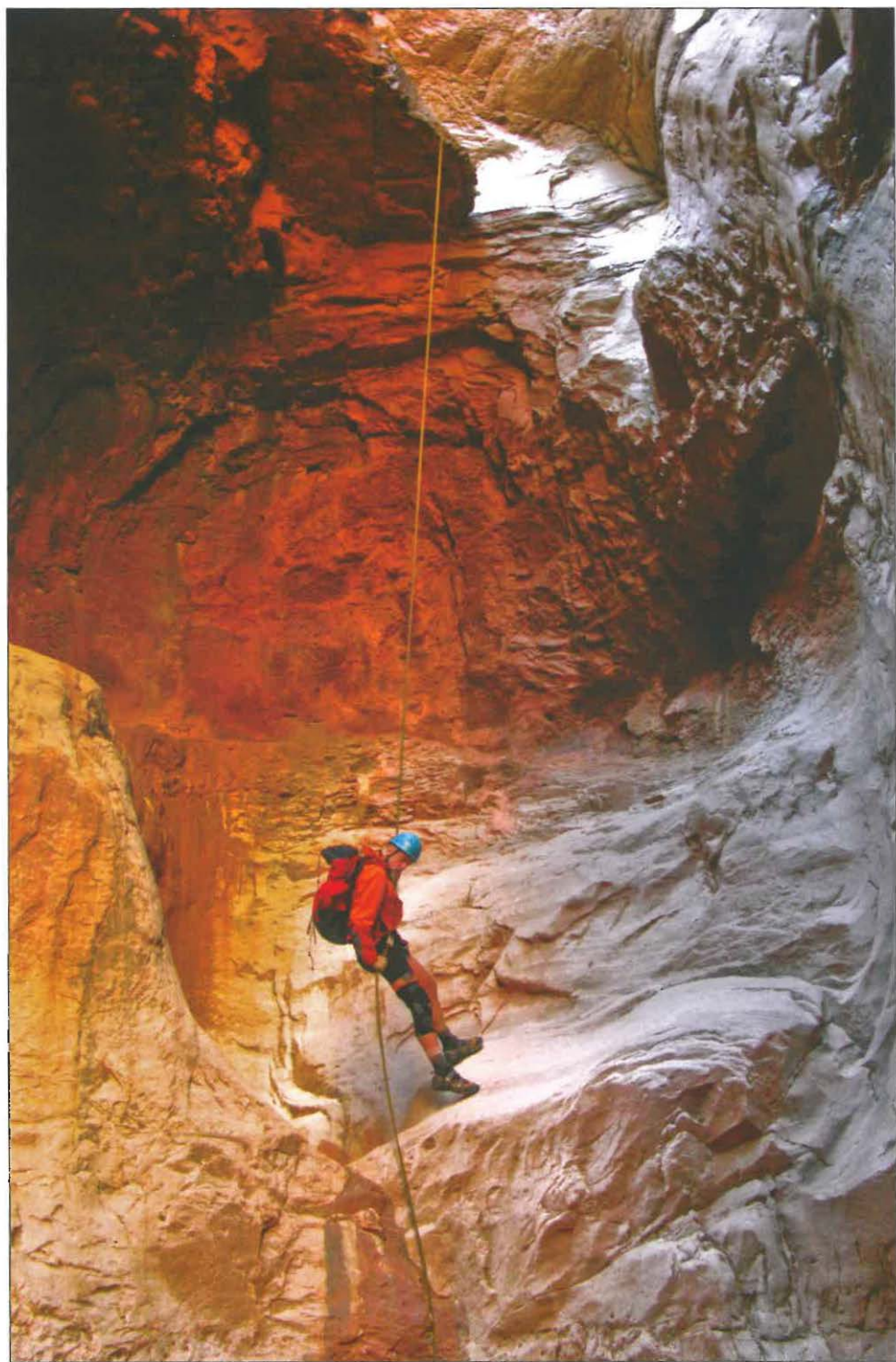






*Scotty's Hollow*





*Steve Ramras on the final rappel in Crack Baby Canyon*

## 53: Kanab Creek - Western Tributaries

**OVERVIEW:** This hike covers several of the western tributaries of Kanab Creek. They are (in order from north to south) Crack Baby, Scotty's Hollow, Kanab Two, Kanab One and Kanab Zero. The technical sections of these canyons can be done entirely with natural anchors.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LC9

**REQUIRED GEAR:** **Crack Baby** requires 1x200' rope (or 2x100' ropes), 40' webbing and 5 rap rings; the **North Fork of Scotty's Hollow** requires 1x100' rope, 40' webbing and 4 rap rings; the **South Fork of Scotty's Hollow** is non-technical; however, a 50' rope is recommended; **Kanab Two Canyon** requires 2x250' ropes, 30' webbing and 5 rap rings; **Kanab One Canyon** requires 2x200' ropes, 50' webbing and 7 rap rings; **Kanab Zero Canyon** requires 2x250' ropes, 80' webbing and 10 rap rings; no special gear is required for **Flipoff Canyon**; **plus:** harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit may be required during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available in Kanab Creek, Scotty's Hollow and in Crack Baby. These canyons require good natural anchor skills. All members of the group should possess good climbing skills if the route involves an ascent of Scotty's Hollow. Camping gear must be kept dry through the pools in Scotty's Hollow and Crack Baby. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> See Trip Description	<b>Distance:</b> 8 – 34 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 5,725 - 2,410 ft.
<b>Time Needed:</b> 2 – 5 days	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Kanab Point 7.5	<b>Navigation:</b> Moderate

### DRIVING DIRECTIONS

See the Kanab Creek (Hike 51) description for driving directions.

### TRIP DESCRIPTIONS

**FLIPOFF CANYON (RATING: 1A VI):** Follow the Flipoff Canyon Route found in the Kanab Creek (Hike 51) description to the top of the Supai. Hike south (right) along the Esplanade in a clockwise fashion to enter the main arm of the canyon. A few minor downclimbs are encountered in the Flipoff drainage, but in large part the hiking is straightforward and easy all the way to the confluence with Kanab Creek. Those looking for water may find a spring-fed pool a short distance up the right arm of the canyon near UTM: 12S 351040 mE, 4039221 mN, WGS84 Datum. As is typical in Grand Canyon (where you get back what you pay for in effort), the trouble-free hiking is accompanied by unremarkable scenery.

**CRACK BABY (RATING: 3B VI):** This short, but fun technical canyon is located a short distance above the Kanab/Jumpup junction just below the drainage that some are



calling Flipoff Canyon. It can be accessed either by coming down off the rim above Flipoff or by hiking up from below. If accessing the canyon via the Flipoff Route, simply follow the descriptions above into Flipoff Canyon down to the beginning of the Redwall Limestone. Climb out of the canyon on the right (south) to gain the top of the Redwall.

If approaching from the junction of Kanab Creek and Jumpup Canyon, hike up Kanab for about 20 minutes to identify the mouth of Crack Baby at UTM: 12S 353267 mE, 4039275 mN, WGS84 Datum. Reliable water is available a short distance into the slot just behind a 5-foot chute and chockstone. Continue up Kanab past the mouth of this canyon for another 2 miles to where a prominent canyon enters from the left (which is not named on the map, but which some are calling Flipoff Canyon) located at UTM: 12S 352500 mE, 4040366 mN, WGS84 Datum. Walk up this drainage a short distance until it's possible to climb out on the left (facing upcanyon) to gain the top of the Redwall.

From top of the Redwall in Flipoff Canyon, head south, traveling above Kanab along a bighorn trail, which contours the top of the limestone to eventually gain the head of the slot at UTM: 12S 353021 mE, 4039020 mN, WGS84 Datum.

Descending the canyon, you'll soon enter a slot and a series of rappels that come in quick succession. The first rap is 45 feet in length from a pinch point on the right. Rappel #2 is a 20-footer over a chockstone from a rock-chock at the top of the drop. Rappel #3 is 45 feet in length into a chamber with a big pool at the bottom from a pinch point on the left. Rappel #4 is 90 feet long over an extremely awkward ledge consisting of sharp limestone using a knot-chock in a crack in the bottom of the canyon at the exit of the pool (note: this anchor may be below the water line of the pool and difficult to locate). The final rappel is 50 feet in length from a rock-chock on the left into the deep pool described earlier as a possible water source. A short walk will bring you out of the canyon into Kanab Creek once again.



*Pascal van Duin on the 240-foot rappel in Kanab Two Canyon*

**SCOTTY'S HOLLOW:** Most people access Scotty's Hollow from below by hiking upcanyon from Kanab Creek. Access routes from Sowats Point and Indian Hollow to the lower end of Scotty's may be found in the Kanab Creek (Hike 51) description. Those with good climbing skills coming up from the bottom can ascend Scotty's by reversing the directions below and exiting the Redwall through the south fork of the canyon. This is useful for those who wish to use Scotty's to access Kanab Zero, Kanab One or Kanab Two or to exit the canyon completely via the Scotty's Hollow Route.

**South Fork of Scotty's Hollow (Rating: 3A VI):** In order to descend the South Fork of the canyon, you must negotiate four significant chockstone downclimbs (as well as several minor drops). Good climbers should be able to descend without a rope; however, it would be prudent to carry a 50-foot rope just in case. The first chockstone lies a short distance from the head of the Redwall and is best downclimbed on the right. Once down you'll find yourself in a narrow, dry, grey limestone hallway. Continue downcanyon to the second chockstone, which is easier than the first. The third chockstone is the most difficult of the bunch and is best downclimbed on the right. The fourth obstacle occurs right at the confluence of the right and left forks and is the easiest of all.

**North Fork of Scotty's Hollow (RATING: 2B VI):** The canyon begins with two nuisance rappels in quick succession to pass dryfalls formed by large chockstones. The first is 25 feet in length using a tree at the top for an anchor; the second is 30 feet long using a pinch point on the left. A short distance downcanyon, you'll arrive at a 25-foot rappel, which we rigged from a constructed rock pile at the top. The final rappel is 40 feet in length using a rock wedged in a crack on the right as an anchor. A short walk will bring you to within sight of the confluence with a few pour-offs blocking the way. You can either climb right down through the canyon or use some fancy footwork to walk the steeply sloped wall on the left around the obstacles.



*Scotty's Hollow*

**Scotty's Hollow below the confluence:** A short distance below the confluence, water appears underfoot, which soon forms a gurgling stream. A pool sometimes forms in this upper section that requires a deep wade or short swim; however, it was filled in with gravel when I was here. Not far beyond is a large chockstone, which forms a 15-foot waterfall. This may be downclimbed by tall people by stemming between the rather wide canyon walls (which are wet and quite slick). Shorter and less adept party members can either downclimb on the left and jump the last few feet into a waist deep pool or may be belayed from the top. Don't bother trying to keep your feet dry, they are going to get wet. Below the chockstone, you'll find yourself in a gorgeous Redwall slot with a perennial stream and bright green ferns growing from the canyon walls. If the lighting is good, photographers will want to spend some time taking pictures in the area.

There are no major obstacles as you rock-hop downstream until you reach a point near the junction with Kanab Creek where the stream pours over a small, but vertical falls. This obstacle is easily bypassed by climbing around and down a series of rocks on the far left of the canyon. A short stroll below will bring you to the junction with Kanab Creek.

**KANAB TWO CANYON (RATING: 3A VI):** The easiest approach for this canyon is to begin at the top of the Redwall Limestone in Scotty's Hollow. From this point, hike east along the slope at the top of the Redwall following the rim of Scotty's Hollow, which will be on your left. After a short hike, the slope becomes a flat bench that can be followed east to the rim of Kanab Creek then south to wind around a few bends in the creek to eventually travel up into and then enter the drainage I'm calling Kanab Two at UTM: 12S 351637 mE, 4033358 mN, WGS84 Datum.

Once in the canyon, simply proceed downstream through the upper Redwall to arrive at the first drop, which is a spectacular 240-foot vertical rappel into a stunning amphitheater. We used a small rock wedged in a crack on the right a short distance down from the top of the drop as an anchor (though alternate anchors with a sturdier appearance are abundant for those who prefer more reassurance when completing longer rappels). If you are carrying a 250-foot rope, be sure to extend your webbing as far as possible to ensure the rope reaches the bottom. Unfortunately, while this rappel is truly stunning, it is the only scenery of note to be found in the canyon.

Just downcanyon from the big drop, you'll encounter two nuisance rappels in quick succession. The first is 10 feet in height and can be anchored using a rock horn on the right of the chockstone that forms the drop. The next is 15 feet long and can be rigged from a Redbud tree. Some hiking and a few climbs down chutes will bring you to rappel #4, which is 75 feet in length using webbing threaded through holes in the limestone at the top. A short distance below, you'll arrive at the final rappel into Kanab Creek, which is 100 feet in length and can be rigged from a sling around a rock wedged in a pinch point just down and to the right of the large boulder that forms the obstacle.

**KANAB ONE CANYON (RATING: 3A VI):** The approach for this canyon is described from Kanab Point. It would also be possible to access the canyon by contouring south along the top of the Redwall from Scotty's Hollow (see Kanab Two description above). The latter would avoid the long entry rappel in the Supai.

Follow the Kanab Point Route (see Hike 51) down to the top of the Supai. Route-finding is a trivial affair since the dry wash found at the bottom of the route drains into Kanab One. Enter the dry wash and follow it through the upper layers of the Supai. Soon,



you'll arrive at a junction with the other minor arm of the canyon followed by a sheer, vertical drop. The cliff may be negotiated in two stages by first rappelling 180 feet to a shelf using a large boulder at the top of the drop as an anchor then by rappelling 140 feet using another boulder as an anchor to reach the bottom of the canyon. After pulling your rope, hike downcanyon through the remaining Supai to arrive at the start of the Redwall, which begins with a 20-foot drop that can be rappelled using a rock-chock on the right as an anchor.

Continue downcanyon through the shallow narrows around a few corners to arrive at the fourth rappel, which is a 160-foot free hanging drop into a beautiful chamber using a pinch point at the top. Rappel #5 is a double drop totaling 125 feet in length using a Redbud tree at the top as an anchor (use care with the rope placement to avoid a hard pull). A short stroll will bring you to rappel #6, which is 60 feet in length into a narrow hallway using a rock wedged in a crack at the top. Not far downcanyon, you'll arrive at a chockstone obstacle that may be downclimbed on the left to a point, which ends in a short slide and jump (some may prefer a belay). Continue downcanyon to the final rappel, which is a 50-footer from a pinch point at the top. A short hike below will bring you to the confluence with Kanab Creek.

**KANAB ZERO CANYON (RATING: 3A VI):** The approach for this canyon is described from Kanab Point. It would also be possible to access the canyon by contouring south along the top of the Redwall from Scotty's Hollow (see Kanab Two description above). The latter would avoid the long entry rappel in the Supai, but would require a fairly long walk on the Redwall (I have not completed this hike).

Follow the Kanab Point Route (see Hike 51) down to the top of the Supai, then contour in a clockwise manner to the right and work your way down into the head of Kanab Zero near UTM: 12S 352189 mE, 4031337 mN, WGS84 Datum. Descend the drainage until an area of slickrock is encountered that is followed by several drop-offs. It might be possible to pull out the rope and figure out how to get down these obstacles, but since anchors are in short supply, it's easier to simply leave the canyon to the right and hike over to the next drainage that feeds the canyon. This minor tributary can be descended to a point where a single 75-foot rappel is required, using an obvious pinch point formed by a large chockstone at the top. Just below, you'll encounter a second drop that may be bypassed by climbing over a boulder and down a crack on the left. A short stroll will bring you to the top of a very large cliff that is best descended in two stages. The first stage requires a 180-foot rappel to a shelf from a sling around a small rock that is wedged beneath a very large boulder. You can then tie webbing around a small but sturdy tree on the shelf to perform a 215-foot rappel to complete the decent. Some hiking and climbing through boulders will bring you to the top of the Redwall.

After negotiating a few minor obstacles in the upper Redwall, you'll arrive at series of drops that begin with a downclimb (actually more of a slide, then jump) into a pothole. Tie webbing around a boulder in the bottom of the pothole for use as an anchor for a 30-foot rappel down the other side. Sling a boulder in another pothole a short distance later (be sure to extend the webbing over the lip on the downcanyon side to guarantee an easy pull) to complete a 210-foot, 3-stage rappel into consecutively deeper pools (the last of which may require a short swim). You'll now find yourself in a beautiful, and shaded, alcove that makes a nice spot for a break. Just below, you'll encounter a 20-foot rappel down a chute from a pinch point on the left, and a short distance later you'll reach a 150-foot rap down a pretty wall dotted with ferns that may be anchored using a chockstone at the head of the

drop. Continue downcanyon, to soon arrive at a 75-foot drop down a fern covered wall using a pinch point at the top as an anchor. After some hiking that provides a break from the rappels, you'll be faced with a 70-foot drop that can be rigged from a natural arch up on a bench on the left a short distance back from the edge. After completing a few downclimbs, including one that is somewhat challenging due to the fact that it is coated with dirt, you'll arrive at the final rappel into Kanab Creek. The drop may be completed by slinging a chockstone on the right and is exactly 150 feet in length. A fairly nice campsite is found at the bottom of the drop a short distance to the left.

## ***AUTHOR'S RATING***

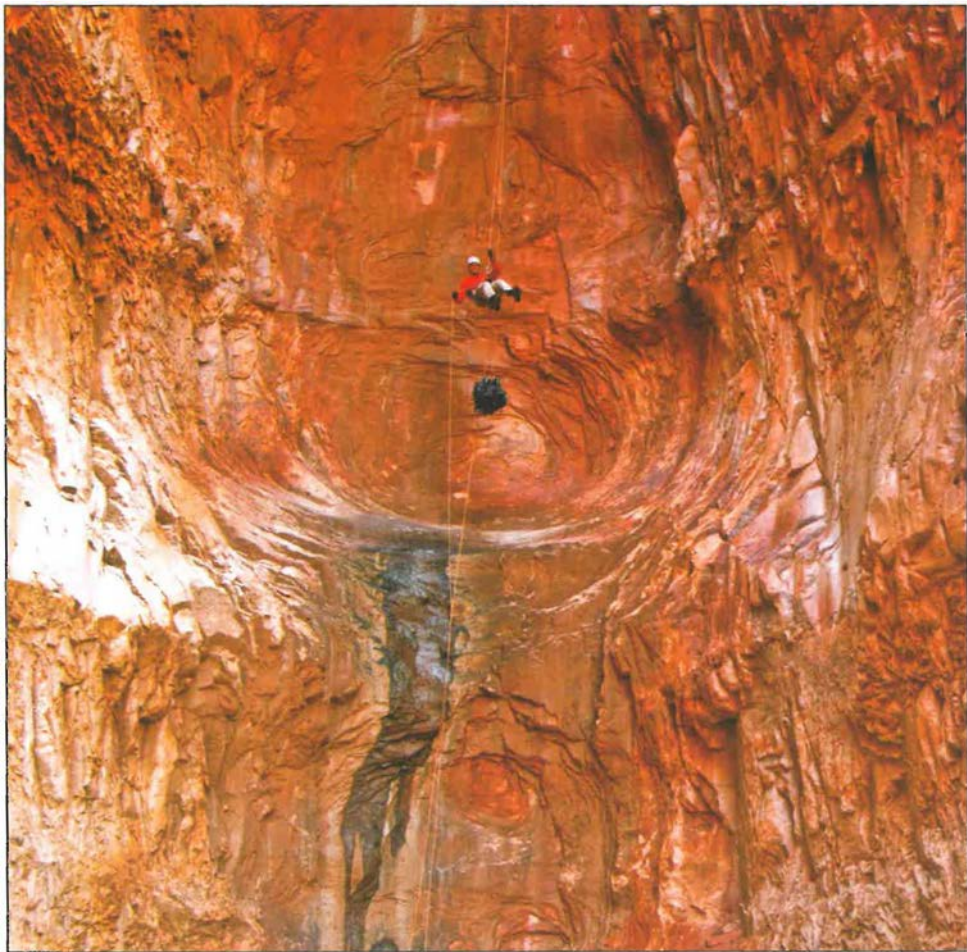
**Scotty's Hollow: ★★★★★**

**Crack Baby and Kanab Zero Canyons: ★★★★★**

**Kanab One Canyon: ★★★**

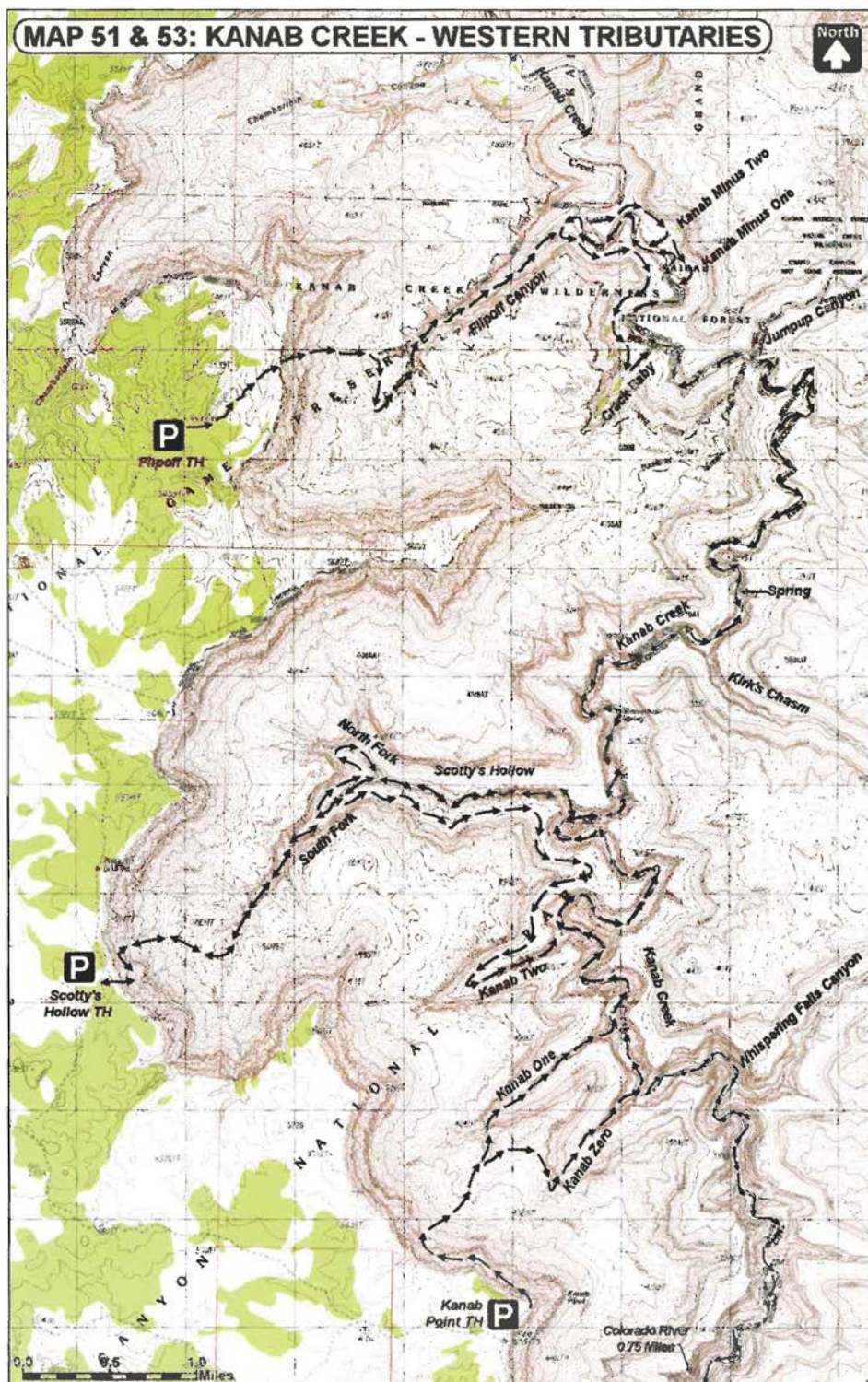
**Kanab Two Canyon: ★★**

Anytime you have water flowing through the Redwall you can be assured that a beautiful canyon awaits and Scotty's Hollow certainly meets that standard. The other western tributaries of Kanab, though short, are quite scenic in their own right and worth a visit for those traveling in the area.

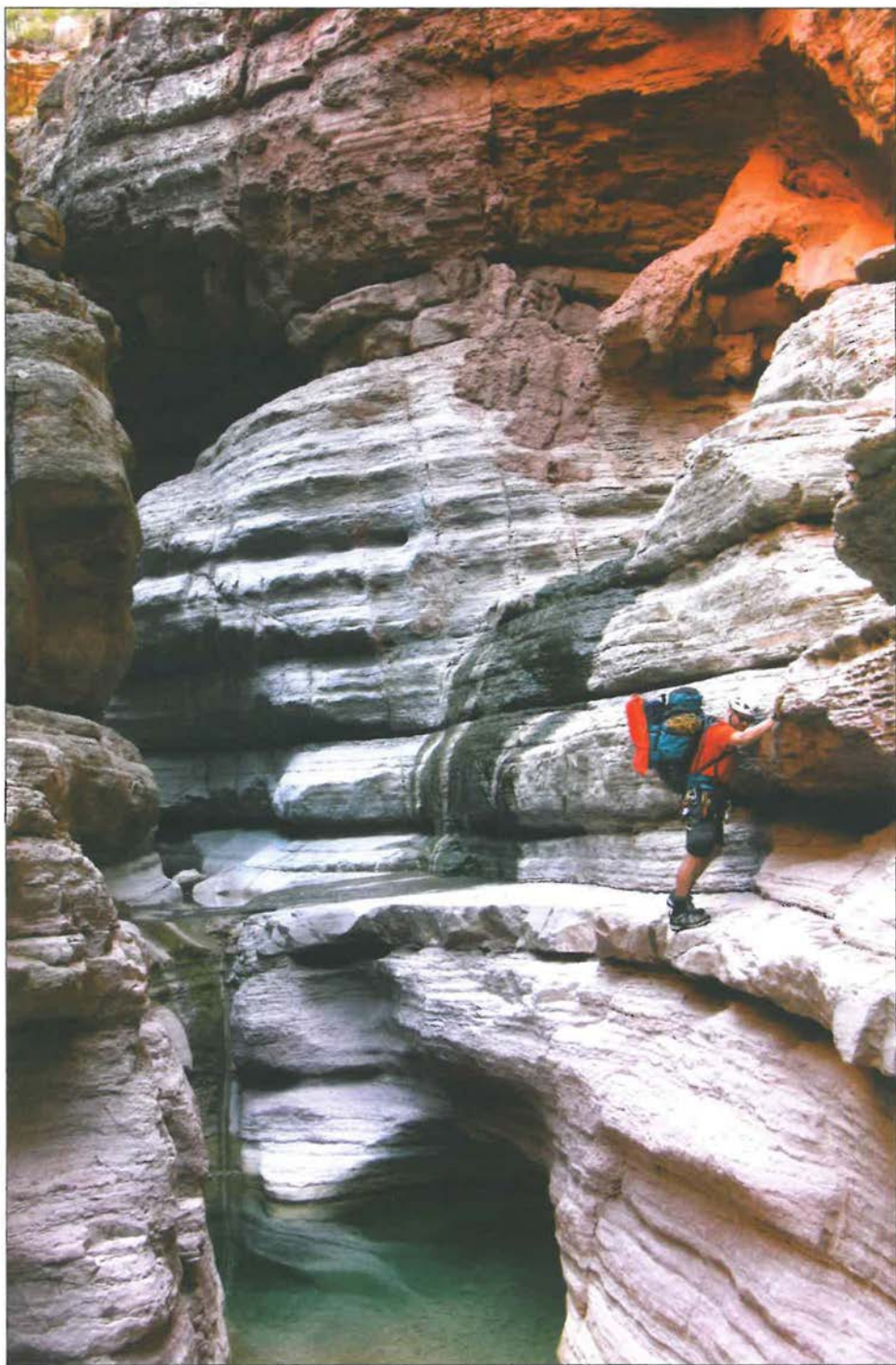


*Kanab One Canyon*









*Temple Butte narrows in Olo Canyon*

## 54: Olo Canyon

**OVERVIEW:** Though the approach is somewhat long there is plenty to see along the way and Olo makes for a beautiful destination with narrows in the Redwall, Temple Butte and Muav Limestone layers. Access is described via a descent of 150-Mile Canyon followed by a river crossing and ascent of Matkatamiba Canyon.

**LOCATION:** Grand Canyon National Park. South Rim. Use area: BT9

**REQUIRED GEAR:** 2x100' ropes, 40' webbing, 5 rap rings, harness, descender, helmet, carabiners, drybag, shoes with good traction, packraft, paddle and personal floatation device. A wetsuit may be required after rains or during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available from seeps in the Sinyala Fault (seasonal), in lower Olo Canyon and at the Colorado River. Olo Canyon requires good natural anchor skills. Camping gear must be kept dry through the pools in the canyon. All members of the group should possess good climbing skills. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 32 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 5,580 – 1,840 ft.

**Time Needed:** 4 – 8 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Havasu Falls, Fossil Bay 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

This hike begins at the 150-Mile Trailhead. See driving directions for 150-Mile Canyon (Hike 56).

### TRIP DESCRIPTION

From the 150-Mile Canyon trailhead, follow the directions found in Hike 56 for 150-Mile Canyon to the river, leaving parachute cord behind at each drop in 150-Mile so you can get back up again. Pick up the Matkatamiba Canyon route (see Hike 55) and follow it to the south side of the river and then hike up Matkat to the head of Panameta Canyon (water may be present in potholes just below the rim). Continue to wind your way along the top of the Redwall around Panameta Canyon, then up to the head of the northern fork of this drainage. This northern fork lies on the Sinyala Fault. It is the break created by this fault that will enable access to the top of the Supai. The continuation of the fault can then be followed back down again into Olo Canyon to the north.

Walk up the drainage of the northern fork. The burro trails fade as you gain elevation, and soon the hiking becomes steeper and more demanding as you begin climbing into the Supai sandstone. Do not be discouraged by what appears to be an impenetrable headwall above, the break in the cliff remains out of sight behind a bend in the canyon. Instead, continue the strenuous ascent climbing where necessary to pass low cliff bands. A few intermittent seeps might be found near the base of the Supai, providing an opportunity to collect water.

In the upper reaches of the canyon, one final cliff band will prove the most troubling and requires a 15-foot free climb on the left (facing upcanyon). Use care, as the rock

(typical of the Supai layer) is loose and rather crumbly. Above this obstacle, the canyon begins to bend to the right and the top of the Supai appears. Continue through the rocks and breakdown to top out below the Kangaroo Headland on Chikapalagi Mesa.

Travel across the flat mesa to the north to identify the continuation of the Sinyala Fault. This portion of the fault is less steep and obstacle strewn than the one you so recently ascended and contains what appears to be a fairly reliable trickling spring or seep at the base of the Supai. It's a straightforward boulder hop all the way down to the rim of the Redwall narrows above Olo Canyon. Once at the Redwall, you will once again pick up burro trails to follow the rim of the canyon to the right (southeast), contouring all the way to the head of the Redwall to a point where the creekbed drops into the narrows.

Entry into the narrows requires a 100-foot rappel from a boulder wedged at the top of the drop. Below, you will find a beautiful amphitheater, followed by a short section of pretty narrows. Although the canyon widens all too soon, the rock-hopping remains fairly easy throughout the Redwall as you descend Olo Canyon. Eventually, you'll arrive at the Temple Butte Limestone, which also marks the appearance of clear, emerald green water in the stream bed. Not long thereafter, you'll arrive at a pool, followed by a drop into a stunning grotto. Entry into the grotto requires a 50-foot rappel using a pinch point on the left as an anchor into a waist deep pool (note: it is possible to bypass this drop by climbing high around to the left, but you'd be missing one of the best parts of the canyon).

The canyon widens once more and resumes the rocky trek towards the river, eventually arriving at the Muav Limestone. Entry into the Muav slot requires a tricky 10-foot downclimb or rappel next to a large chockstone slung with a river runner's rope. Continue through a shallow, but pleasant, slot to a pour-off. Rappel 50 feet to the base of a pool from an old piton on the right. Just beyond, perform a downclimb and traverse on the left to avoid a deep pool to reach the final rappel, which is 45 feet in length from any combination of 2 climber's nuts and/or 2 old pitons on the left. A short walk will bring you to the Olo Rapid and the Colorado River.

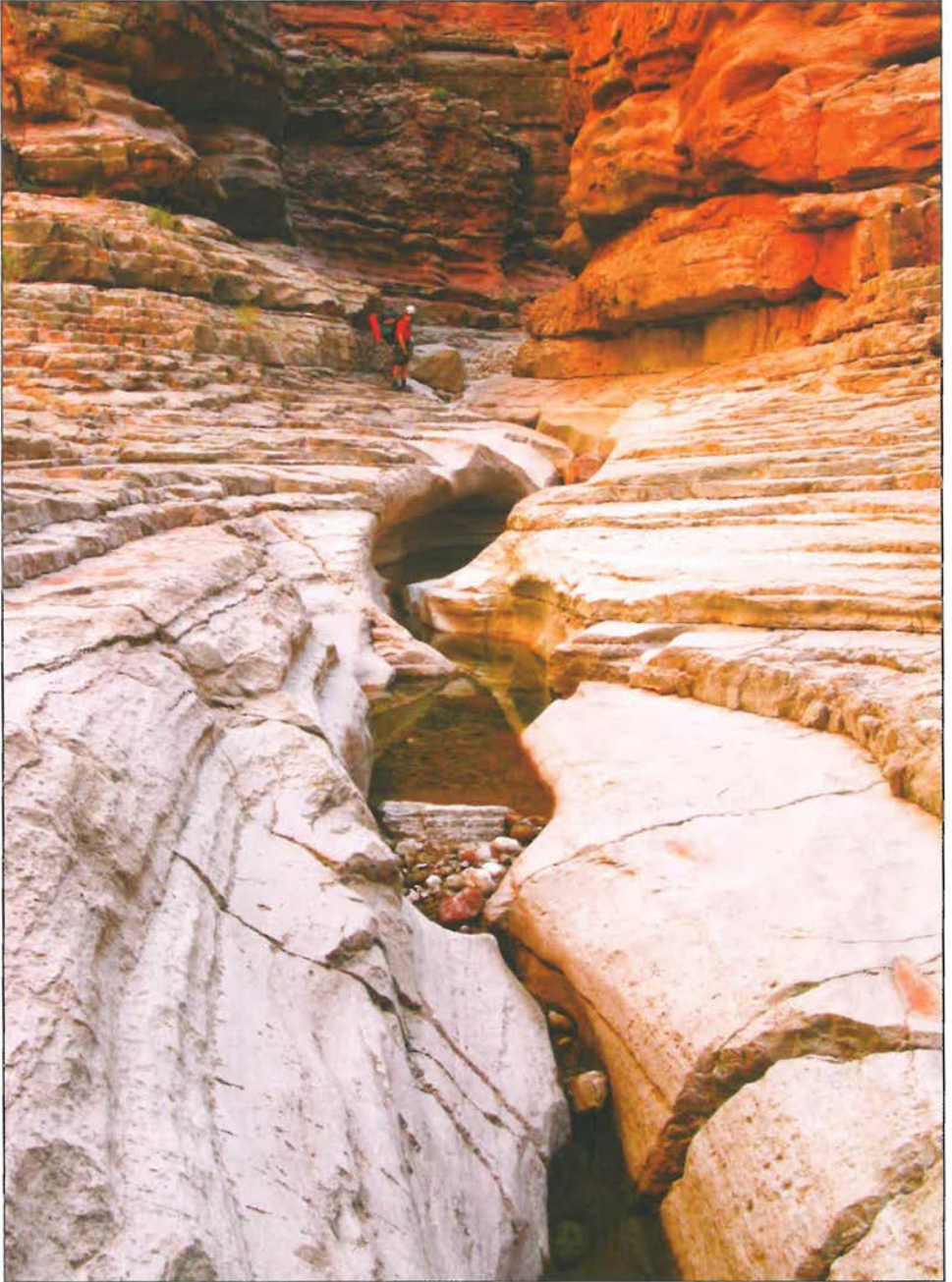
The next leg of the journey involves a return to 150-Mile Canyon. Walk the beach to a point below the Olo rapid and inflate your packraft. While there is really only one significant set of rapids in this section that you'll need to bypass (located at the mouth of Matkatamiba Canyon, bypass on the right/north), the river runs rather swiftly between sheer walls in this section, creating a series of riffles. You'll want to be on guard at all times with paddles at the ready to avoid being spilled into the cold river. After portaging Matkatamiba Rapid, float downriver either 1.4 miles to the gully on the right that can be used to gain the top of the low Muav cliff that lines the river (better for less experienced climbers) or 1.9 miles to the beach at 150-Mile Canyon (at least one good climber in the group is required). If doing the latter, be sure to take out on the right (north) above the aptly named Upset Rapid. Follow the directions found in the 150-Mile Canyon description (Hike 56) back up this canyon to the rim and your vehicle.

## ***AUTHOR'S RATING ★★★★★***

This hike provides the opportunity to see three stunning canyons in one remote and adventurous outing. I completed this trip with Rich Rudow and Brian Alleyne in four long days of 9–12 hours hiking each. On the first day, we descended 150-Mile Canyon and crossed the river to camp on Muav ledges above the Matkat Hotel. Day two, we ascended Matkatamiba Canyon, hiked the Redwall rim around the arms to climb the Sinyala fault to

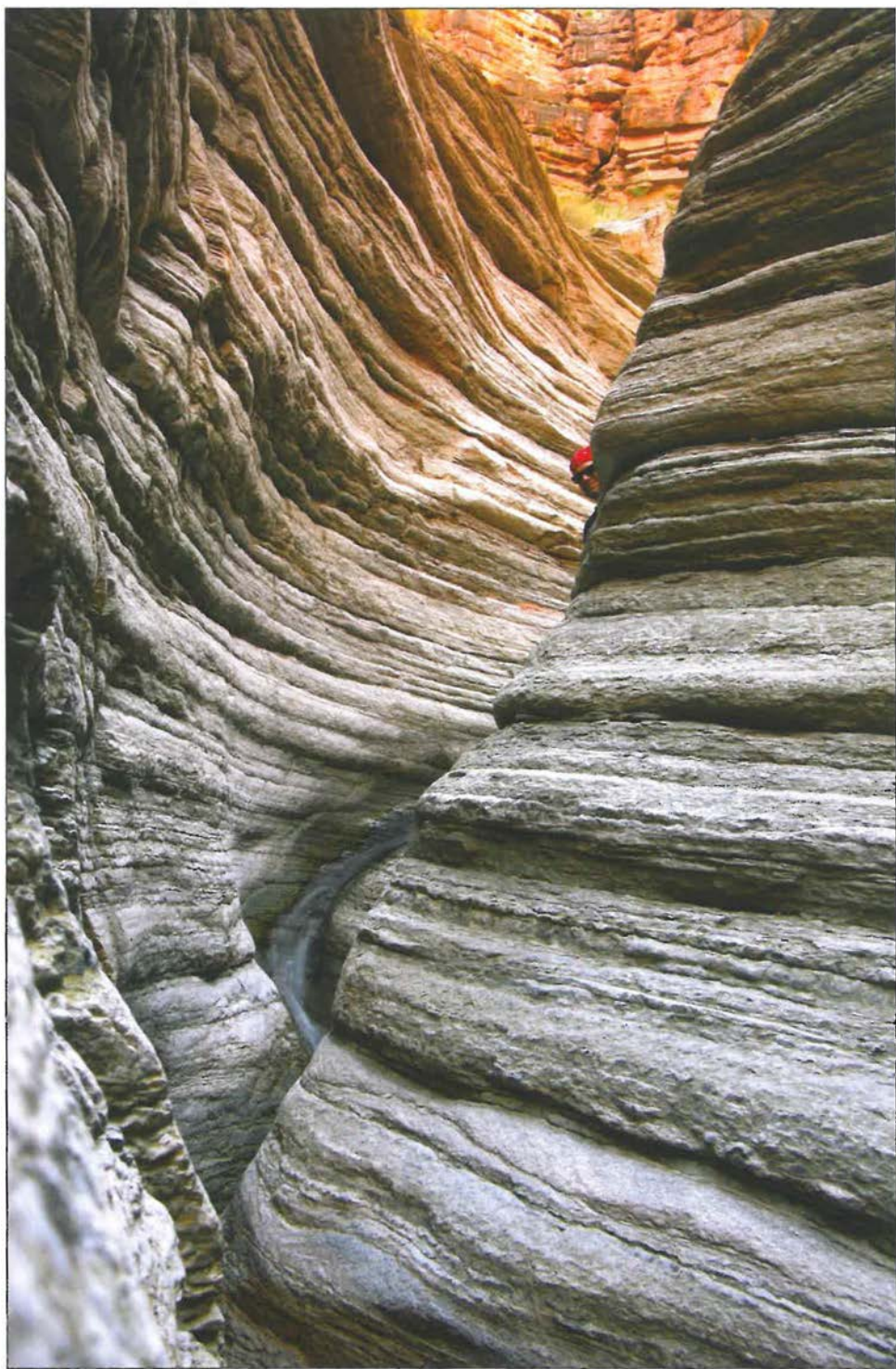


the top of the Supai. We finally collapsed on top of Chikapanagi Mesa, making a dry camp on the slickrock. The next day we made our way to the head of Olo Canyon, which we then descended to the river. After a speedy raft trip back to 150-Mile, we arrived at the top of the Muav bench just as the sun was setting. The last day, we completed our ascent of 150-Mile Canyon to the rim and our vehicle.



*Olo Canyon*





*Matkatamiba Canyon*

## 55: Matkatamiba and Panameta Canyons

**OVERVIEW:** Matkatamiba is rarely seen by non-rafting parties and features one of the most beautiful Muav slots in the entire Canyon, its northern fork also contains an intense and technical Redwall slot that I'm calling Panameta Canyon. Access is described via 150-Mile Canyon followed by a river crossing in a packraft.

**LOCATION:** Grand Canyon National Park. South Rim. Use area: BT9

**REQUIRED GEAR:** **Matkatamiba Canyon** is non-technical; **Panameta Canyon** requires 2x100' ropes, 60' webbing, 8 rap rings, harness, descender, helmet, carabiners and a wetsuit; **plus:** drybag, shoes with good traction, ascending gear, packraft, paddle and personal floatation device.

**SPECIAL CONSIDERATIONS:** Water is available in lower Matkatamiba Canyon, in Panameta Canyon and at the Colorado River. Panameta Canyon requires excellent natural anchor skills. Camping gear must be kept dry through the pools in the canyon. All members of the group should possess good climbing skills. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 26.6 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 5,580 – 1,840 ft.

**Time Needed:** 4 – 8 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Havasu Falls, Fossil Bay 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

This hike begins at the 150-Mile Trailhead. See driving directions for 150-Mile Canyon (Hike 56).

### TRIP DESCRIPTION

From the 150-Mile Canyon trailhead, follow the directions found in Hike 56 for 150-Mile Canyon down to the Muav Limestone near the river. Hike downcanyon until you reach a dryfall and then backtrack a short distance and climb up to a narrow unlikely looking ledge on canyon left (north). This ledge can be followed around to the mouth of the canyon and a bench overlooking the Colorado River. Follow this bench upriver for ¾ miles to a point where breakdown allows access to the bank of the river via a steep slope (UTM: 12S 348641 mE, 4023828 mN, WGS84 Datum). After climbing down the slope, continue upstream along the beach until the embankment pinches off and you can go no farther. The only place to go from here is across the river, but some planning is required first. The current in this section of the river is smooth, but rather swift and the take out point on the other side of the river is limited in size. If you are carried too far downstream while crossing, cliffs on the other bank will prevent you from exiting, and you'll have to start over. With that in mind, note that there is an eddy on the north side of the river just upstream from where the embankment ends that is created by a cliff that juts a short distance into the water. Paddle



your packraft upriver into the eddy remaining tight up against the north cliff face until you are just behind the jutting rock. When ready, paddle hard towards the opposite bank. If you miss the take out point, no big deal, just get back over to the north side, rest, and try again.

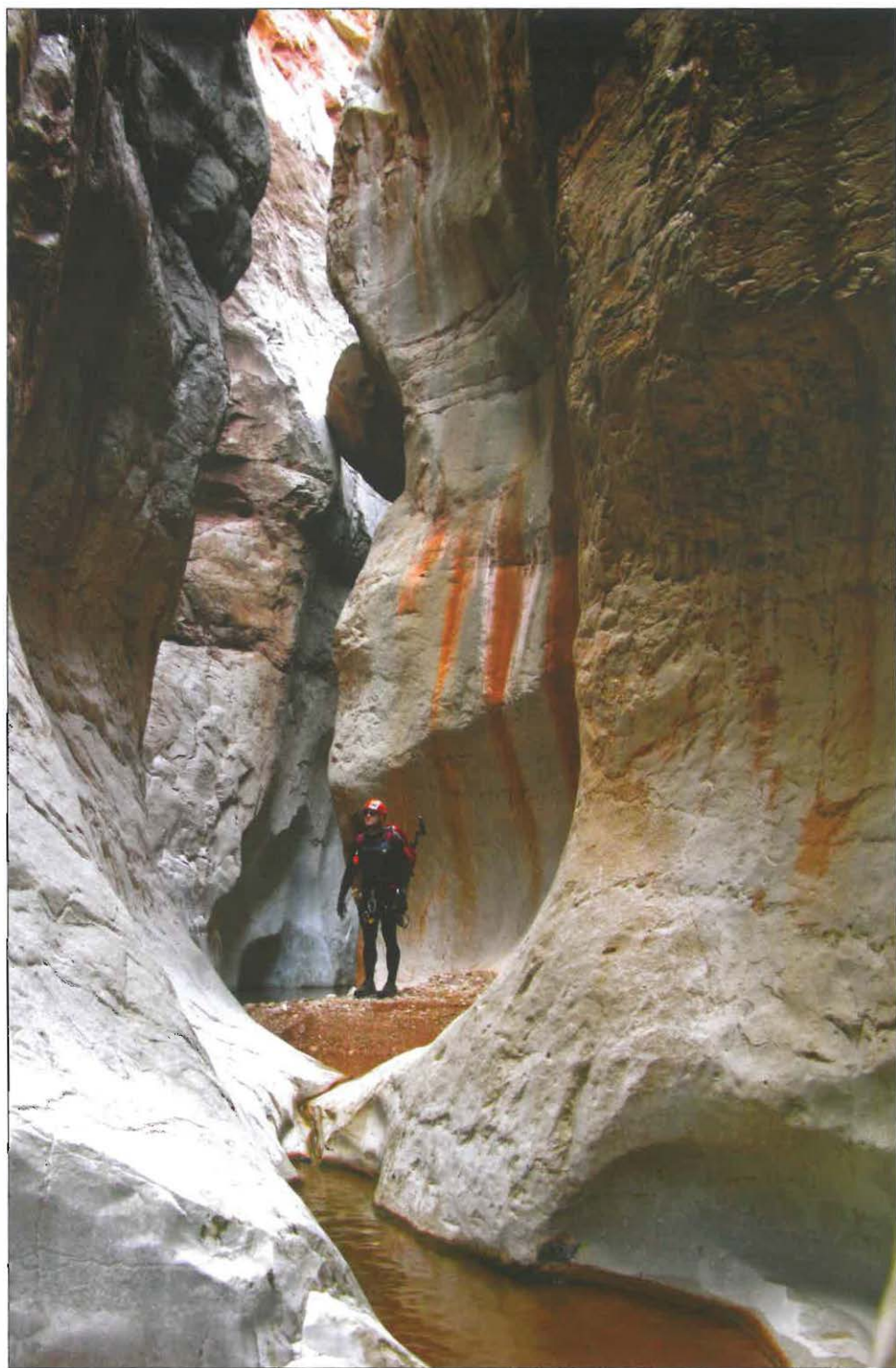
Once on the south side of the river, deflate your packraft and climb up to the top of the Muav bench to continue the hike upriver. A well worn and cairned trail appears at the small drainage located just downriver from Matkatamiba Canyon at UTM: 12S 348793 mE, 4023091 mN, WGS84 Datum. River runners refer to the beach below this drainage as the Matkat Hotel and it offers some sandy campsites beneath the tamarisk. Follow the trail as it winds its way along the cliff, then up into Matkatamiba to a point not far from a pleasant alcove. The alcove is a good place to drop your pack for a side trip through the wonderfully striated Muav narrows to the river and back. No rope is needed, however some climbing and stemming is required if you want to keep your feet dry.

**PANAMETA CANYON APPROACH:** After exploring the narrows, hoist your pack and begin hiking up Matkatamiba canyon. There are a few tricky obstacles presented by large boulders that must be negotiated, and just prior to reaching the junction with the northern fork you'll encounter a dryfall that requires a bypass through the brush on the left (north). Stay to the right where the canyon forks and continue your progress over the rocks. There is one chockstone in the upper portion of the canyon that may require a boost to get up on the right depending on how much gravel has been scoured out at its base by floods.

Eventually, the cliff walls become smaller and it is possible to exit the canyon at an obvious break that may be found on the left (north) at UTM: 12S 351718 mE, 4019608 mN, WGS84 Datum. Follow this break to the top of the Redwall then pick up what appears to be a flat, well maintained trail that contours left, back along the rim of the canyon in which you were so recently hiking. In fact, the trail is not maintained it was made by feral burros that inhabit this area of the canyon. Though the trail is a welcome relief from rock-hopping, it should be noted that these animals wreak havoc on the ecosystem and are thought to be a cause in the decline of bighorn sheep populations.

Follow the trail in a northward direction along the canyon rim to the left fork you had passed earlier, then follow the rim of the left fork due east. This fork of Matkatamiba itself has two upper forks. You'll want to wind your way up and into the southern fork that I'm calling Panameta Canyon. A break on the north side of the drainage will allow you to climb down into the canyon.

**PANAMETA CANYON:** If you haven't put on your wetsuit already, the down climb and deep pool that marks the start of the canyon will serve as a reminder. A sinuous, smoothly polished, limestone slot featuring more pools and a few downclimbs is found just beyond. The canyon temporarily widens and you'll encounter a chockstone and 40-foot rappel that may be completed by slinging a small limestone horn on the far left side of the canyon. The second rappel is found a short distance below and is 20 feet in length from a small, but sturdy tree at the top. The canyon slots back up again to arrive at the third rappel, which is a 40-footer into a pool from a pinch point on the left. This is followed by a 15-foot rappel or hand-line into another pool using a pinch point on the left. Next is an 8-foot drop that we descended using a human anchor and last-man-at-risk technique. More downclimbs, slides and pools follow in quick succession until you arrive at a 50-foot, double stage rappel using a single bolt and hanger on the left followed by a 60-foot rappel using a pinch point on the right.



*The narrows of Panameta Canyon*

# WESTERN GRAND CANYON

A downclimb, slide and a few more pools will bring you to the final rappel sequence, which begins with a 100-foot rappel into a water-filled corridor from a chockstone at the top on the right (note: use care in rigging this chockstone since it is suspended above the drop). The final rappel is 50 feet in length from a rock wedged in a crack in the floor of the drainage. A short stroll below will bring you to the junction with the northern Sinyala Fault arm of the drainage. Remove your harness and hike down the rocky wash to the confluence with Matkat Canyon.

**EXIT:** Retrace your steps down Matkat Canyon to the narrows then pick up the well defined trail on the west side of the narrows and follow it to the beach at the Matkat Hotel. Inflate your packraft and float downriver either ½ mile to the gully on the right that can be used to gain the top of the low Muav cliff that lines the river (better for less experienced climbers) or 1.25 miles to the beach at 150-Mile Canyon (at least one good climber in the group is required). If doing the latter, be sure to take out on the right (north) above the aptly named Upset Rapid. Follow the directions found in the 150-Mile Canyon description back up this canyon to the rim and your vehicle.

**AUTHOR'S RATING ★★★★★**

Though completely different from each other, each of these canyons is outstanding in its own way and both canyons have characteristics that are unique to Grand Canyon. Though often visited by rafters, the Muav slot at the mouth of Matkat ranks among the prettiest slots around and features narrow striated walls and a flowing stream. Panameta Canyon contains polished, serpentine narrows and is highly technical to descend.



*The place to cross the river to get from 150-Mile Canyon to Matkat*

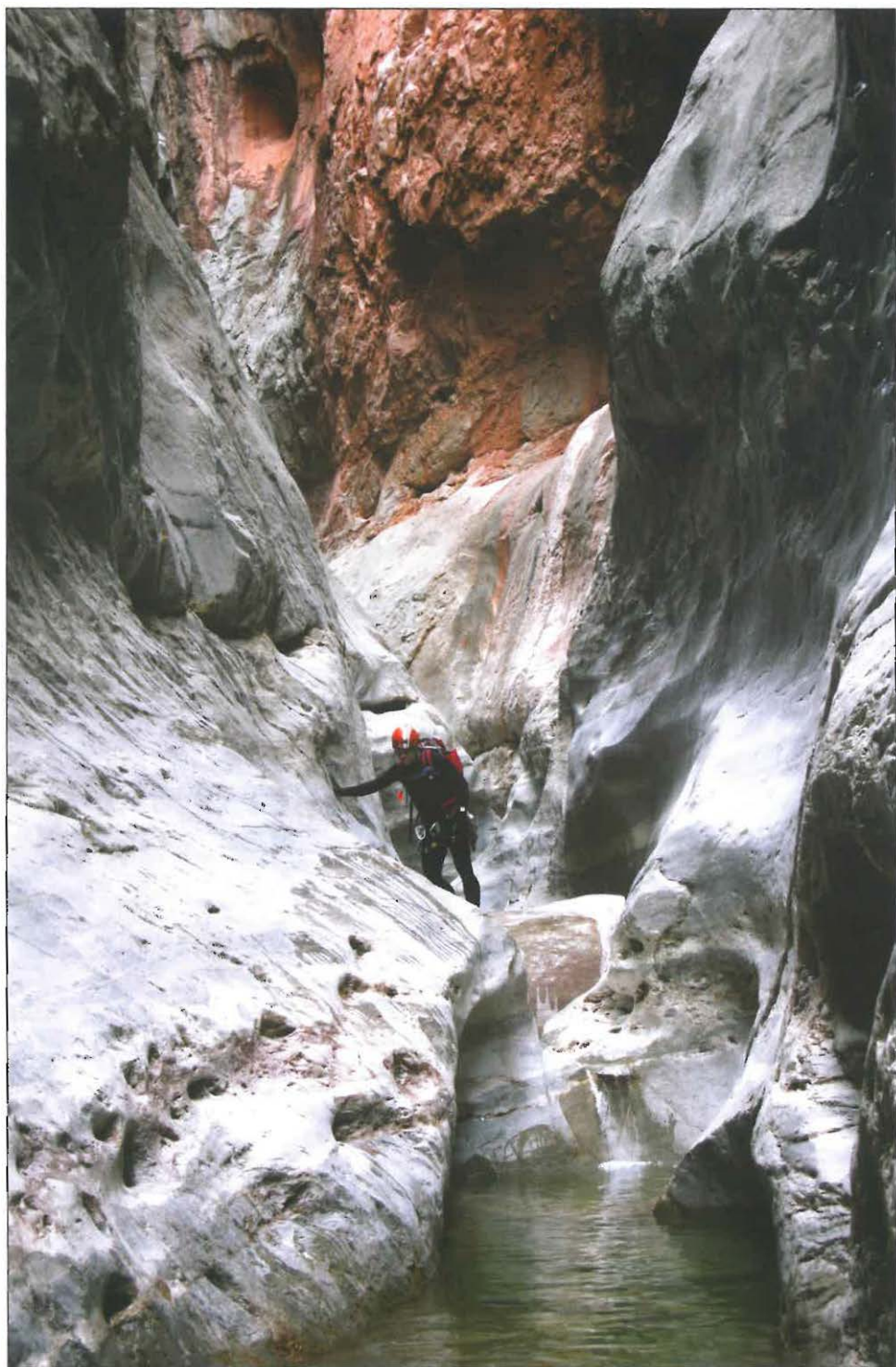


## MATKATAMIBA AND PANAMETA CANYONS

**MAP 54-55: MATKATAMIBA, PANAMETA & OLO CANYONS**







*150-Mile Canyon narrows*

## 56: 150-Mile and North Spring Canyons

**OVERVIEW:** A pleasant backpacking trip to one of the best, and longest Redwall slots in the entire Grand Canyon and its less spectacular northern fork that I'm calling North Spring Canyon.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LB9

**REQUIRED GEAR:** **150-Mile Canyon:** 2x100' ropes or 1x60' rope (depending on whether you plan to rappel or downclimb the initial drop into the Redwall narrows, see description), 30' webbing, 5 rap rings; **North Spring Canyon:** 2x250' ropes, 70' webbing, and 10 rap rings; **plus:** 200' of parachute cord, harness, descender, helmet, carabiners, drybag, shoes with good traction, and ascending gear. A wetsuit may be required after rains or during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available in 150-Mile Canyon at Buckhorn Spring, in the Redwall narrows and the Colorado River. At least four of the drops in 150-Mile Canyon must be rigged so that you can ascend them using a rope on the return. To save weight, parachute cord may be fixed at these drops and used to pull climbing rope up from below. Camping gear must be kept dry through the many pools in these canyons. This hike requires a permit from the National Park Service.



<b>ACA Rating:</b> 3B VI	<b>Distance:</b> 13.5 miles
<b>Physical Difficulty:</b> Strenuous	<b>Elevation:</b> 5,580 – 1,840 ft.
<b>Time Needed:</b> 2 – 4 days	<b>Best Time of Year:</b> Spring, Summer, Fall
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> No
<b>Maps:</b> USGS Hitson Tank, S B Point, Havasu Falls 7.5	<b>Navigation:</b> Moderate

### DRIVING DIRECTIONS

Follow these directions carefully, as there are many branching roads in the area. From the small town of Fredonia, drive west on State Road 389 for 8.3 miles to between mileposts 25 and 24. Turn left (south) onto Mt. Trumbull Road. Zero your odometer and drive 27.1 miles on this well graded dirt road to a right branching road and sign for Toroweap and Mt. Trumbull (UTM: 12S 331684 mE, 4048869 mN, WGS84 Datum).

**VIA JENSEN TWIN TANKS (better if roads are wet):** Remain heading straight and then turn right at the 29-mile point (UTM: 12S 333031 mE, 4046217 mN, WGS84 Datum). Zero your odometer. The road becomes progressively rougher as you proceed. After 0.3 miles, you'll pass a sign for Mt. Trumbull Road. Continue straight to the 1.4-mile point to arrive at a large corral and ranch facility at Jensen Twin Tanks. Stay to the left remaining on the main road as it arcs in a broadly clockwise direction. Stay right where the road branches at the 1.8-mile point, and then drive due south ignoring any branching roads to eventually arrive at the 4.4-mile point at a large tank that lies to the east (UTM: 12S 332425 mE, 4039839 mN, WGS84 Datum).



Continue driving to the south and 0.1 miles later you'll reach a corral and fence, which will be on the right, along with a right branching road. Stay straight, ignoring right branching roads at mile points 4.6 and 4.9 (at a juniper tree). At the 6.5-mile point, a road enters from behind on the right. Continue on, ignoring right branching roads at mile points 6.7, and 8.7. Stay straight at the 10.6-mile point where a road branches left, and 0.4 miles later you'll pass a sign indicating that you are entering Grand Canyon National Park (UTM: 12S 336630 mE, 4031188 mN, WGS84 Datum). Continue due south; ignore a right branching road at the 13.2-mile point and a minor left branching road at 13.3 miles. The road travels south for another mile before beginning a broad curve to the left to eventually reach the 150-Mile Trailhead and a corral at the 16.7-mile point (UTM: 12S 340137 mE, 4027445 mN, WGS84 Datum).

**VIA JUNE TANK (better if roads are dry):** From the 27.1-mile point, continue straight on Mt. Trumbull Road following the sign towards Mt. Trumbull (26 miles). Drive to the 32.2-mile point and turn left at UTM: 12S 326532 mE, 4043047 mN, WGS84 Datum (or take the next left 0.1 mile later).

Zero your odometer and drive 0.4 miles to arrive at June Tank (which will be on the left). Turn left after the cattle guard, it's here that you'll be able to determine whether the road conditions are dry enough to proceed. Turn back if the road is muddy; it only gets worse from here. The road forks at the 3.8-mile point; stay to the left to pass Niniger Tank 2 miles later. Remain straight at mile 9.4 to pass a sign indicating that you are entering Grand Canyon National Park 0.4 miles later. The road forks at the 11.9-mile point, right will take you to S B Point, but we'll stay straight instead and drive 3.5 miles to reach the 150-Mile Trailhead and a corral at the 15.4-mile point (UTM: 12S 340137 mE, 4027445 mN, WGS84 Datum).

## TRIP DESCRIPTION

**APPROACH:** From the car park, locate the trail that lies just north of the corral. The route descends rather steeply, bends to the right then zigzags down the loose, rocky slope through the Kaibab Limestone. The route is somewhat faint in places, but is marked with small cairns at infrequent intervals. The path descends very steeply through a break in the Toroweap formation then continues through the Coconino to eventually reach the canyon bottom near an old wheelbarrow. Buckhorn Spring lies just upstream from this entry point near a prominent stand of cottonwood trees. The spring emanates from beneath a large rock slab beside the trees.

Begin rock-hopping downcanyon through a section of boulders. The walking soon becomes easier as the canyon opens up into a wide, flat, rocky wash occasionally interspersed with Supai Sandstone sidewalks. After some hiking, the wash enters a long, scenic section of Supai narrows. Eventually you will encounter two dry-falls in the Supai, the first of which may be bypassed on the left up a slickrock bench with a faint constructed trail leading back to the canyon floor, the second may be bypassed on the right immediately beyond the dryfall through some trees and brush. Water might remain in potholes in this section for some time after the last rain. More hiking will bring you to the start of the Redwall narrows.



*150-Mile Canyon*



*Todd Seliga in the lower Muav narrows of 150-Mile*

**NORTH SPRING CANYON:** Before making your way to the head of North Spring Canyon, you'll need to fix rope or parachute cord at the first 4 of the 5 chockstone rappels in 150-Mile Canyon for use on the return (good climbers should be able to get up the 5th chockstone without rope). Follow the directions found in the 150-Mile Canyon description below to fix your rope. Once this is complete, ascend back out to the top of the Redwall.

With that bit of important business out of the way, climb on top of the Redwall bench on the left side of 150-Mile Canyon and begin contouring to the east. I wish I had better news to report, but the hiking along the slope is rugged, slow and rather unpleasant, particularly where it contours around, down and out of the many bays encountered along the route. Nothing to do but keep a stiff upper lip as you hike the 3 miles to a spot near the head of North Spring Canyon.

Rather than come directly down from the head of the canyon, we chose to rappel in from the right side in order to avoid having to swim a large and uninviting pool. A sheer drop is present just below the pool and the total distance from the rim to the canyon floor came in at 240 feet. Webbing tied around a large boulder on the rim was used as an anchor for this drop. The canyon disappointingly widens fairly quickly below. A short walk will bring you to the second rappel, which is 35 feet from a sling threaded through holes in the limestone on the right. The next rappel, formed by two very large chockstones, is 60 feet long using a rock wedged in a crack on the right as an anchor. Just before arriving at the junction with 150-Mile, the canyon drops precipitously. Using a rock wedged under a shelf on the left, rappel 110 feet into a nice alcove. Sling a boulder in the alcove to rappel an additional 150 feet to the canyon floor below. Remove your harness for the short stroll to the junction with 150-Mile Canyon.

From the junction you can either turn left to travel down 150-Mile Canyon and further adventure, or right, following the directions below to the rim and your vehicle.

**MAIN FORK 150-MILE CANYON:** Walk the ledge of the Redwall on the left for a short distance, past an obvious camp situated beneath a ledge. There are two ways into the canyon. The first is to rappel 70 feet from a bolt and hanger located on a small promontory overlooking the canyon a short distance down from the camp. The second is to continue farther along the rim to locate an obvious break in the cliff where it is possible to climb down with some exposure. Though the climb is not terribly difficult, you will want to lower your pack, and some people may want a belay.

Entering the canyon, you will find yourself in a beautiful Redwall slot. Completing 150-Mile Canyon requires you to negotiate 5 chockstone rappels to 25 feet in length. Because you'll need to ascend these same falls on the return trip (and because all but the last would prove difficult if not impossible to free-climb), you'll need to fix rope in place at each of these drops. As an alternative, and as a means of saving weight, a length of accessory cord or parachute cord may be fixed through a rappel ring at the top (be sure to use a rappel ring, as opposed to a link, to ensure the rope may be pulled through it). Tie the ends of the cord together so that it forms a continuous loop. This will prevent it from accidentally slipping through the ring. We also left a note with each pull-cord requesting that they "BE LEFT IN PLACE OR WE'LL DIE" in the event someone came along behind us. On the return, you may connect this cord to your rope (fixed with a carabineer block) and pull it into place so that it may be ascended.

A short hike downcanyon will bring you to two 15-foot rappels in quick succession.



The first uses 2 bolts and hangers (B&Hs) on the left as an anchor, the second, a single B&H on the left. Some wading and possibly a short swim are required to negotiate the beautiful slot below. The depth of the water will depend upon recent rains and the amount of scouring of the canyon bottom that has occurred.

The canyon opens up somewhat, then narrows again before reaching rappel #3, which is 25 feet from 2 B&Hs on the left, soon followed by rappel #4, which is 15 feet from a single B&H on the left to the top of a pool. The final drop is 8 feet from a single B&H on the left to the base of a pool. You may also downclimb this drop without a pack.

Continue hiking as the canyon widens somewhat to eventually reach a pour-off that may be bypassed via a short detour on the right (south). Farther downcanyon, you'll be faced with another pour-off that can be bypassed by following benches high on the left (north) for about  $\frac{1}{4}$  mile to an obvious break that will allow you to work your way back down to the canyon floor. Note: Some may wish ignore this second bypass to remain in the canyon bottom. Those who do so will downclimb a chute to arrive at a single old bolt and hanger on the right from which it is possible to complete a 50-foot rappel. The second and final rappel is most easily negotiated by first climbing around a huge boulder to the left side of the canyon, then threading webbing through a pinch point formed by two very large rocks to complete a 40-foot rappel to the canyon floor. A short walk below will bring you to the bottom of the bypass described above.

Just below the long bypass, Muav ledges appear and the faint roar of Upset Rapid can be heard. Hike downcanyon until you reach a chockstone and dryfall. The narrows below may be completed as a technical descent or bypassed. The descent can be done with 1–3 rappels. The first is 35 feet in length from a bolt on a shelf on the left at the top of the drop. The second is approximately 30 feet long and may be rigged from a rock wedged under a shelf up on the left, or downclimbed with some exposure by following a ledge around and down on the right. The third drop is a 10-footer and may have rope fixed in place from a boulder at the top for use by river runners coming up from below. A short walk below will bring you to the beach at Upset Rapid.

Those looking to bypass the Muav narrows should backtrack a short distance and climb up to a narrow unlikely looking ledge on canyon left (north). This ledge can be followed around to the mouth of the canyon and a bench overlooking the Colorado River. It is possible to climb down to the beach via a vertical route that descends a cliff just inside the mouth of 150-Mile on the right, but given the difficulty it would be safer to simply rappel. Another, if longer, route to the river involves hiking the bench you are standing on upriver approximately  $\frac{3}{4}$  miles to a point where breakdown allows access to the bank of the river via a steep slope (UTM: 12S 348641 mE, 4023828 mN, WGS84 Datum). Those continuing to Matkatamiba will hike upstream along the beach until the beach pinches off, while those wishing to camp at the mouth of 150-Mile can follow the embankment back to the mouth of the canyon at river level.

**EXIT:** From the beach at 150-Mile Canyon the first order of business is to get on top of the Muav cliffband that lines the river. One option is to hike upstream along the river to the gully and break described above. A shorter, if more difficult route is to walk into the mouth of 150-Mile and scan the right wall for a spot where the cliff reaches its lowest point. Climb up at this spot to get back on top of the Muav limestone. The climb is somewhat tricky, particularly the first 5 feet where the rock has been polished smooth, and

# WESTERN GRAND CANYON

then about 15 feet up where there is a bulge to negotiate. Send your best climber up first, and if necessary they can lower a rope to belay, or haul up, the rest of the party.

Once up, retrace your steps up 150-Mile Canyon. At each of the drops, use the parachute cord you had left in place earlier to pull your rope up so that it may be ascended. The most effective way to do this is to simply loop the parachute cord multiple times around one end of the rope and pull it through. Be sure to leave your parachute cord tied in a continuous loop when performing this task. This will allow you to repeat the effort over and over again should your first attempts fail.

## *AUTHOR'S RATING*

**150-Mile Canyon:** ★★★★★

**North Spring Canyon:** ★★

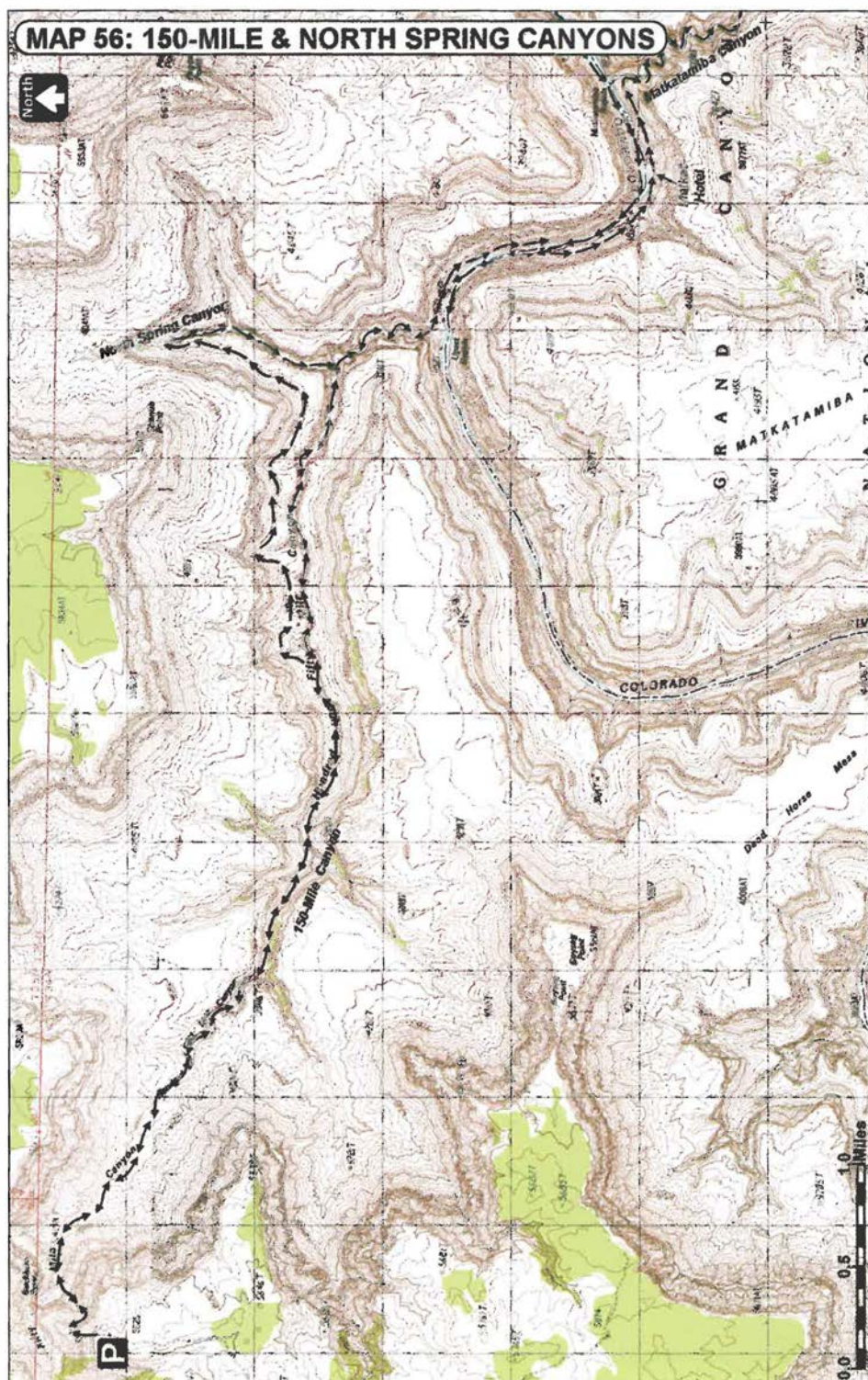
Having been in 150-Mile Canyon on several occasions, it never fails to impress me with its beauty and shifting patterns of light and color. North Spring Canyon also has its moments, but the grueling approach and the presence of a better option (i.e. the main arm of 150-Mile Canyon) make it better suited to those seeking adventure over aesthetics.



*The big entry rappel in North Spring Canyon*



# 150-MILE AND NORTH SPRING CANYONS







*New Navajo Falls (Photo by Rich Rudow)*



*Un-named travertine waterfall in Havasu Canyon*

## 57: Havasu Creek

**OVERVIEW:** A popular backpacking trip to a spectacular creek, waterfalls and the Colorado River.

**LOCATION:** Havasupai Nation, Grand Canyon National Park. South Rim. Use area: BT9

**REQUIRED GEAR:** Backpacking gear and shoes with good traction when wet.

**SPECIAL CONSIDERATIONS:** Water is available at the campground and at the Colorado River. A permit from the Havasupai Tribe is required to complete this hike. To camp in the canyon, reservations must be made ahead of time by calling one of the following numbers (all are area code 928): 448-2121, 448-2141, 448-2174, or 448-2180. If you would rather stay at the lodge, call: 448-2111 or 448-2201. Entrance fee = \$35 per person per visit, Camping fee = \$17 per person per night, Environmental care fee = \$5 per person BUT is refundable if you take a sack of garbage back out with you to the Hilltop.

*Note: Fees are subject to change.*



**ACA Rating:** 1C VI

**Distance:** 36.0 miles

**Physical Difficulty:** Strenuous

**Elevation:** 5,190 – 1,870 ft.

**Time Needed:** 3 days

**Best Time of Year:** Spring, Summer, Fall

**Vehicle:** Passenger Car

**Car Shuttle:** No

**Maps:** USGS Supai, Havasu Falls, S B Point 7.5

**Navigation:** Easy

### DRIVING DIRECTIONS

From Flagstaff, drive west on I-40 to exit 123 for Seligman (last chance to get gas and supplies). Travel west on Route 66 for about 30 miles and turn right (north) on Indian Road 18. Keep your eyes open for elk, deer, cattle and horses (particularly if driving at night) as you follow Indian Road 18 for 60 miles to where it ends at Hualapai Hilltop.

### TRIP DESCRIPTION

**HUALAPAI HILLTOP TO THE HAVASU CAMPGROUND:** The trail begins on the north side of the parking lot and descends a series of fairly steep switchbacks through the Toroweap and Coconino layers. Mule and horse trains use the trail daily and, as a result, the earth has been pounded into a soft powder that quickly becomes airborne when disturbed. Breathing through a bandana when horses pass might help filter some of the particles before they reach your lungs. The path drops 1,100 feet in the first 1.5 miles before arriving at Hualapai Canyon at the top of the Supai. A sign at the entrance to the canyon warns hikers of flash flood dangers.

Once in Hualapai Canyon, the trail becomes a fairly level gravel path as it winds its way through the canyon for the next 4.5 miles. The drainage is fairly scenic as it becomes entrenched in the Supai Sandstone, although the litter somewhat offsets the view. The canyon descends somewhat more steeply, then becomes fairly wide at a point where it joins Cataract Canyon (which enters from the right) to become Havasu Canyon at the 6.5-mile point.

Stay left and head down Havasu Canyon to eventually pass a corral. Follow the sign for Havasu Campground right across a wooden bridge. Here, you will catch your first glimpse of Havasu Creek and the turquoise water for which the area is notable. At the 8.0-mile point, you will enter the village of Supai, a small Indian town with a few tourist amenities including a small café, lodge, post office, school, church, clinic, police station, and a general store. Hikers must check in at the tourist office, which is in the main part of town on the left side of the road just south of the helipad. The office is open 7 days a week from 7a.m. – 7p.m. (between April – October) and from 8a.m. – 5p.m. (between November – March). After picking up your hiking tag, continue along the road following the Havasu Campground signs until you are out of town.

On your way down to the campground, you will pass New Navajo Falls and Rock Falls (both on the left). These falls were created during a flash flood that occurred in August of 2008, redirecting the watercourse around the “old” Navajo Falls in the process. The path soon begins descending into the Redwall and you will pass by 100-foot-tall Havasu Falls, one of the most photographed waterfalls on the planet (and for good reason), with a great view from the road as you descend. At the 10.0-mile point, you will reach a gate (horses prohibited past this point), beyond which is Havasu Campground. The campground is surprisingly nice for such a well used place and you may camp at any unoccupied site you choose. Spring water is available from a faucet on the left in the upper part of the camp (treat all water before drinking). Toilets are located at either ends of the camp. The southern end of the camp seems to fill up first, so if you don’t see any appealing sites at first, simply continue walking to the north. Do not leave food unattended in camp and be sure to hang or otherwise protect your food at night. Rodents, ravens and trail dogs are extremely bold, clever and voracious in the area.

**HAVASU CAMPGROUND TO THE COLORADO RIVER:** Walking downstream from the campground, you will soon arrive at Mooney Falls; another spectacular falls dropping nearly 200 feet from a sheer cliff into a large blue/green swimming pool below. To descend to the base of the falls, you will pass through two short tunnels and use a series of chains and ladders to negotiate the steep face of the travertine covered cliff (the lower section of this climb may be wet and slippery from the mist from the falls). To get to Beaver Falls, which lies 2.0 miles downstream, follow the well developed trail on the left side of the canyon through the riparian vegetation and fields of wild grape. Along the way you will have to cross the stream three times. The stream bed is rocky, so it’s best to leave your shoes on and plan on getting them wet. The trail passes several rim-stone dams, which create small, interesting cascades along the creek. These limestone falls are formed from fallen branches or rocks that become coated over time with dissolved lime in the water. The lime is also what gives the water its unique blue color.

Just prior to reaching Beaver Falls, you’ll arrive at a large palm tree on the right and just beyond the trail ends at a vertical rock face with ropes fixed in place. Using the ropes, climb up to a ledge to parallel the creek from high on the right-hand wall. You will soon catch sight of Beaver Falls, which is located just upstream of Beaver Canyon (which enters Havasu from the left). The falls is of moderate size and is spread out over a series of cascades. To visit the falls, you can either locate a use trail on the left that descends a steep ravine to the bottom of the creek or continue along the trail until it drops down to creek level and walk up from below. Beaver Canyon also marks the boundary with Grand Canyon National Park. The Park Service prohibits camping along Havasu Creek from the



park boundary to its confluence with the Colorado River. Camping is also prohibited next to the river from a point 100 yards upriver of Havasu Creek to 0.5 miles downriver.

After passing Beaver Canyon, the path descends to travel beside the creek once again. There are 5 river crossings between Beaver Falls and the Colorado River and 3 other spots where wading is unavoidable. The remaining 3.5 miles to the river is otherwise fast and easy hiking. You'll know you're getting close when the trail passes through a small cave on the right and soon thereafter arrives at the head of a short section of narrows. The path bypasses the narrows by climbing on Muav ledges to the left, then drops down once again at the mouth of Havasu Creek at its confluence with the Colorado River.

Those looking for a short but fun trip may wish to complete a direct descent of the narrows instead of taking the bypass route. This trip requires a few short swims making it best suited for a warm day (just be sure to climb out on the left before entering the river!).

When ready, retrace your steps to the campground then back up to Hualapai Hilltop and your vehicle.

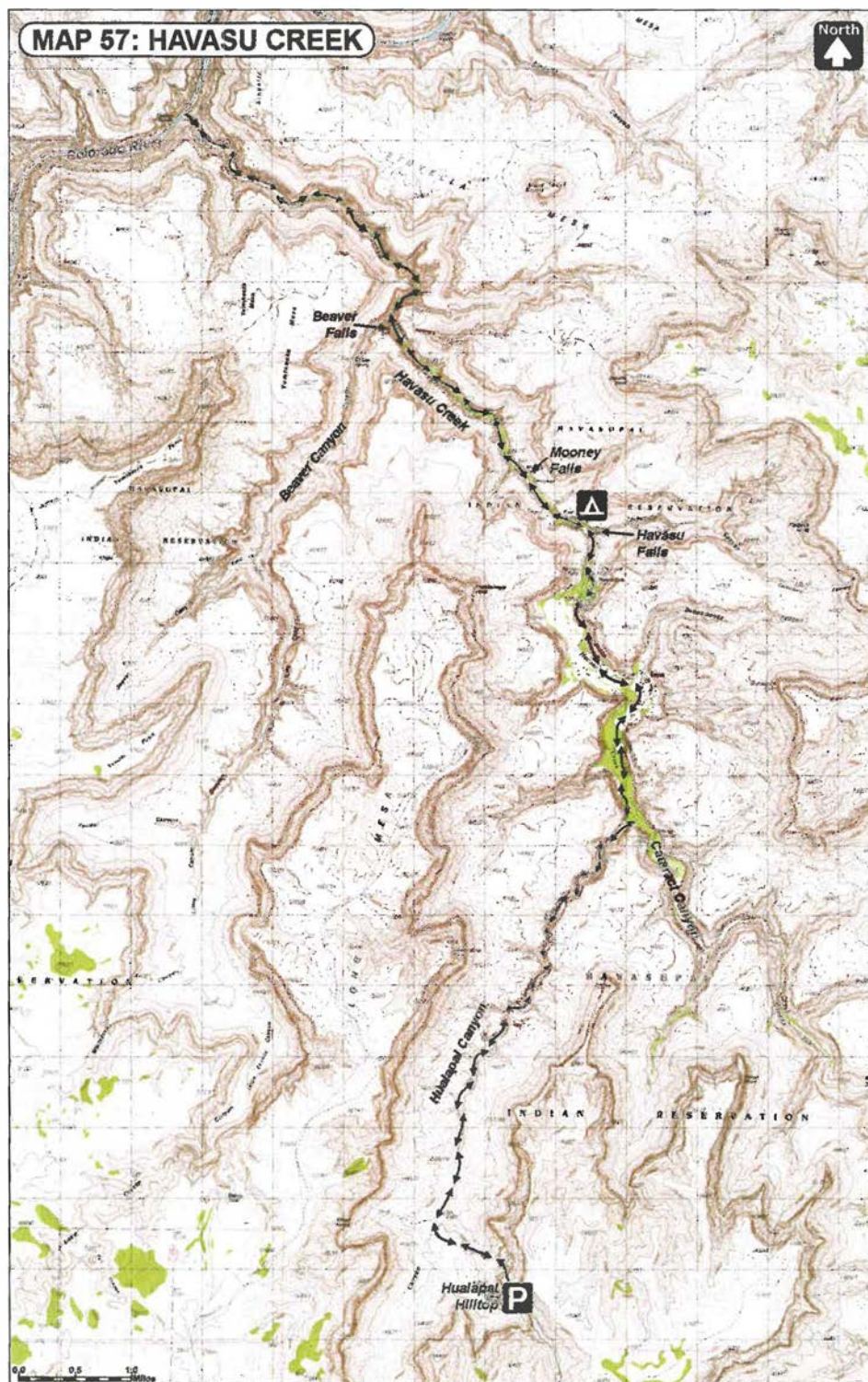
#### *AUTHOR'S RATING ★★★★★*

Though the approach hike is nothing to write home about, the waterfalls and hike to the river are quite nice. This is a classic hike that every backpacker should complete at least once.



*Havasu Falls*

**MAP 57: HAVASU CREEK**





## 58: Cork Spring Canyon

**OVERVIEW:** An extremely remote and rugged backpacking/canyoneering/packrafting trip descending Cork Spring Canyon, then floating the river to exit at Tuckup Canyon. All members of the group must possess excellent climbing skills and a tolerance for exposure to complete the route described. It would also be possible to approach the canyon by way of a less risky, but considerably longer method beginning at the Tuckup Trailhead, then following the Tuckup Trail east to the head of Cork Spring Canyon.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LB9

**REQUIRED GEAR:** 2x250' ropes, 60' webbing, 6 rap rings, harness, descender, helmet, carabiners, drybag, shoes with good traction, packraft, paddle and personal floatation device. A wetsuit is strongly recommended for the river trip.

**SPECIAL CONSIDERATIONS:** The difficulty and danger of the entry route should not be underestimated. The road to SB Point is heavily rutted requiring a high clearance 4WD for access. Water is available in the Redwall narrows of Cork Spring Canyon and at the Colorado River. Cork Spring Canyon requires good natural anchor skills. Camping gear must be kept dry through the pools in the canyon. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B R VI

**Distance:** 20.2 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 5,750 – 1,740 ft.

**Time Needed:** 3 – 5 days

**Best Time of Year:** Spring, Fall

**Vehicle:** 4-Wheel Drive

**Car Shuttle:** No

**Maps:** USGS S B Point, Fern Glen Canyon 7.5

**Navigation:** Difficult

### DRIVING DIRECTIONS

From the small town of Fredonia, drive west on State Road 389 for 8.3 miles to between mileposts 25 and 24. Turn left (south) onto Mt. Trumbull Road. Zero your odometer and drive 27.1 miles on this well graded dirt road to a right branching road and sign for Toroweap and Mt. Trumbull (UTM: 12S 331684 mE, 4048869 mN, WGS84 Datum). Stay straight to the 27.1-mile point and continue straight at the sign towards Mt. Trumbull (26 miles). Drive to the 32.2-mile point and turn left at UTM: 12S 326532 mE, 4043047 mN, WGS84 Datum (or take the next left 0.1 of a mile later).

Zero your odometer and drive 0.4 miles to arrive at June Tank (which will be on the left). Turn left after the cattle guard, it's here that you'll be able to determine whether the road conditions are dry enough to proceed. Turn back if the road is muddy, it only gets worse from here. The road forks at the 3.8-mile point, stay to the left to pass Niniger Tank 2 miles later. Remain straight at mile 9.4 to pass a sign indicating that you are entering Grand Canyon National Park 0.4 miles later. The road forks at the 11.9-mile point, straight will take you to the 150-Mile Canyon Trailhead, but we'll turn right towards S B Point and drive 3.4 miles to park at a nondescript spot at mile 15.3 near UTM: 12S 337117 mE, 4023159 mN, WGS84 Datum. I suggest you mark this point with a GPS so that you can find your vehicle on the way out.

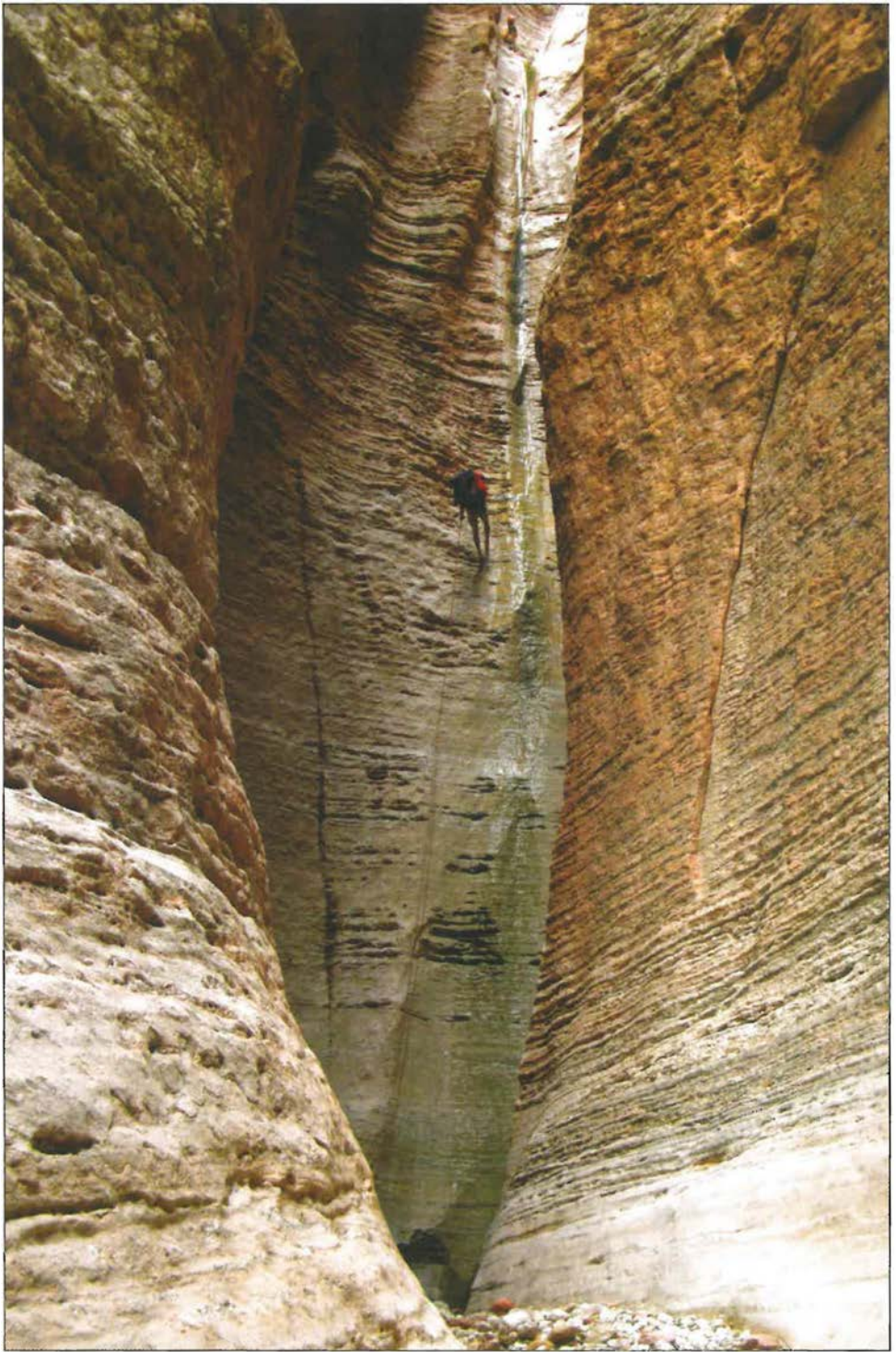


## TRIP DESCRIPTION

**APPROACH (S B POINT DIRECT):** From the nondescript parking spot, hike cross-country through the juniper trees to the southeast, crossing a few minor gullies as you do so. Your goal is to reach the rim of the Canyon at GPS point - UTM: 12S 339094 mE, 4022368 mN, WGS84 Datum and a break that will allow access through the upper limestone layers. The route is steep and covered with loose rock as you descend through the Kaibab and Toroweap, but is otherwise uneventful. Once clear of the upper Toroweap layer, start working your way to the right (west) to begin contouring the crumbly and steep slope above a sheer 200-foot Coconino cliff. The footing is precarious along this route and the soil unstable. Due to these treacherous conditions I'd suggest putting some distance between yourself and the edge of the precipice where possible. Unfortunately, this is not always possible. Occasionally a sheep trail is encountered that makes for somewhat better travel. The goal is to continue south along the top of the Coconino to a minor gully and break that can be found at UTM: 12S 338548 mE, 4022131 mN, WGS84 Datum. Once you've reached this destination, route-find a way down into this cleft in the Coconino, avoiding or downclimbing cliff bands and boulders where necessary. Several difficult and exposed climbs are required to negotiate this section. These are best done by lowering packs then downclimbing with a belay from above. Shoes with sticky rubber soles will greatly improve traction on the steep sandstone slabs. After completing a final, vertical 20-foot downclimb at a jointed crack, the danger diminishes and you will find yourself at the top of a rocky slope overlooking the upper Supai arms of Cork Spring Canyon. Work your way down the rocky slope, the bottom of which conveniently ends in the main Supai arm of the canyon.

**CORK SPRING CANYON:** Hike down through the Supai, negotiating a few minor ledges and boulders until a pour-off is encountered. Sling a rock horn on the right to complete a 40-foot rappel to a shelf. A talus slope may then be used to gain access to the canyon bottom once again. A slog through a boulder field will eventually bring you to the top of the Redwall, which begins with a dramatic 160-foot rappel into a beautiful and deep alcove. A rock wedged in a crack up and on the left serves as an anchor. The second rappel is found just around the corner and consists of a double drop totaling 120 feet using a rock under a ledge on the right. Hike down through stunning narrows to rappel #3, which is 125 feet in length from a bolt and hanger at the top of the drop. After some twists and turns and a few short wades up to chest deep, the canyon suddenly widens.

The walking is straightforward as you continue downcanyon. After some time you'll eventually begin to hear the faint sound of the river below. It's at about this point that further progress will be blocked by a very large pour-off. Remain in the watercourse and climb down to a small shelf where a boulder on the right may be rigged for a 30-foot rappel into a small alcove. A single bolt and hanger on the right may then be used to complete a 240-foot free-hanging rappel to the canyon floor. Hike down through a nice section of Muav Limestone to a point just above the river where the canyon drops into a short slot prior to reaching the beach. Use a pinch point on the right to rappel 70 feet into the slot. All that remains between you and the river are two short downclimbs (some may prefer to complete these with a belay).



*A pretty 125-foot rappel in Cork Spring Canyon*

Once on the beach, remove your harness and walk down to the river below the rapids. Inflate your packrafts for the next leg of the journey involving a 7-mile float to Tuckup Canyon. Several sets of moderately sized rapids are found along this stretch of the river. It might be possible to run all of them (as our group did), but given that conditions will vary with the level of the river, you'll need to evaluate each rapid for yourself and portage where necessary.

**EXIT (HADES KNOLL ROUTE):** Reverse the directions found in the Tuckup Canyon description (Hike 60) upcanyon past the junctions with the tributary canyons of Dome Pocket and Rocky Point Canyons. About 0.2 miles after passing the mouth of Rocky Point Canyon look for a break on the right (facing upcanyon) at UTM: 12S 331108 mE, 4020532 mN, WGS84 Datum that allows access to the top of the Redwall. Near the top of this steep slope you'll need to scale a near vertical 15-foot wall on the right to gain the top of the Redwall.

Once on top, turn left (north) to continue upcanyon along the rocky, unpleasant hillside for 0.4 miles to the first place a break in the Supai can be seen at UTM: 12S 331487 mE, 4021089 mN, WGS84 Datum. As you ascend this steep break you'll see two minor arms in the upper part of the canyon that are separated by a ridge. Remain on the ridge to nearly the base of the bare Supai rock then contour to the right to a point where you can climb up the cliffband (we exited at a spot between the '8' and '0' in the marked 3,800-foot contour line). Once past this hurdle the climbing becomes easier and you'll want to continue climbing up and out to the Esplanade heading northeast towards a promontory that juts into the canyon from the rim south of Hades Knoll. If you continue hiking towards this feature you'll eventually cross the Tuckup Trail, although given how ill-defined it is there's no guarantee you'll recognize it. Regardless, you'll want to follow the approximate route of the trail as it travels above the Hades Knoll arm of Tuckup Canyon to the head of the drainage. Depart the trail at this point and travel straight up the wash.

The wash becomes more brushy and filled with boulders the higher you go. Scanning the hillside above you'll see a distinctive feature on the left side of the drainage (facing upcanyon) that looks like a large Coconino column that has fallen over onto its side. Continue up past this feature then leave the drainage on the left (facing upcanyon) climbing steeply up the slope behind it. At the top of the Coconino column you'll find a large black rock that juts vertically into the air. Climb up beside this dark rock then scan the Coconino above and to the right to identify an unmistakable break in the cliffs at UTM: 12S 335801 mE, 4022941 mN, WGS84 Datum. After climbing up through this initial break, the route bends left to climb diagonally up a series of ledges to the northwest. Continue ascending along this diagonal line in a northwesterly direction, climbing ledges where necessary, through the Coconino and Toroweap until you can see a prominent fin of Kaibab limestone that has split off from the main wall. The route travels up between the Kaibab cliff face and this fin. A short climb from behind the fin will bring you to the canyon rim at UTM: 12S 337124 mE, 4023167 mN, WGS84 Datum.

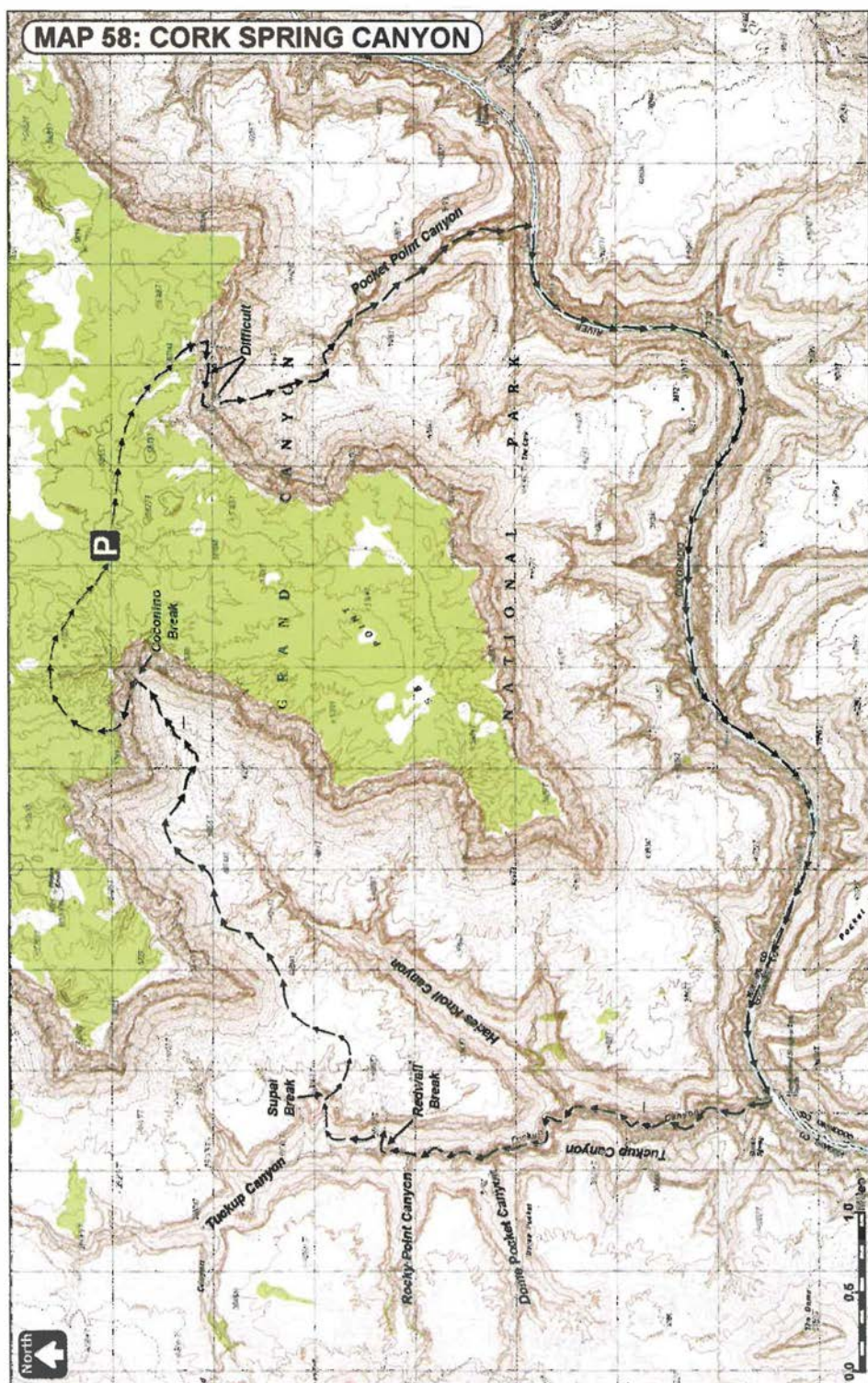
With GPS in hand, head cross-country to the east hiking in a wide clockwise arc to the north to avoid several deep gullies to eventually arrive at your vehicle 2.5 miles later.

## *AUTHOR'S RATING ★★*

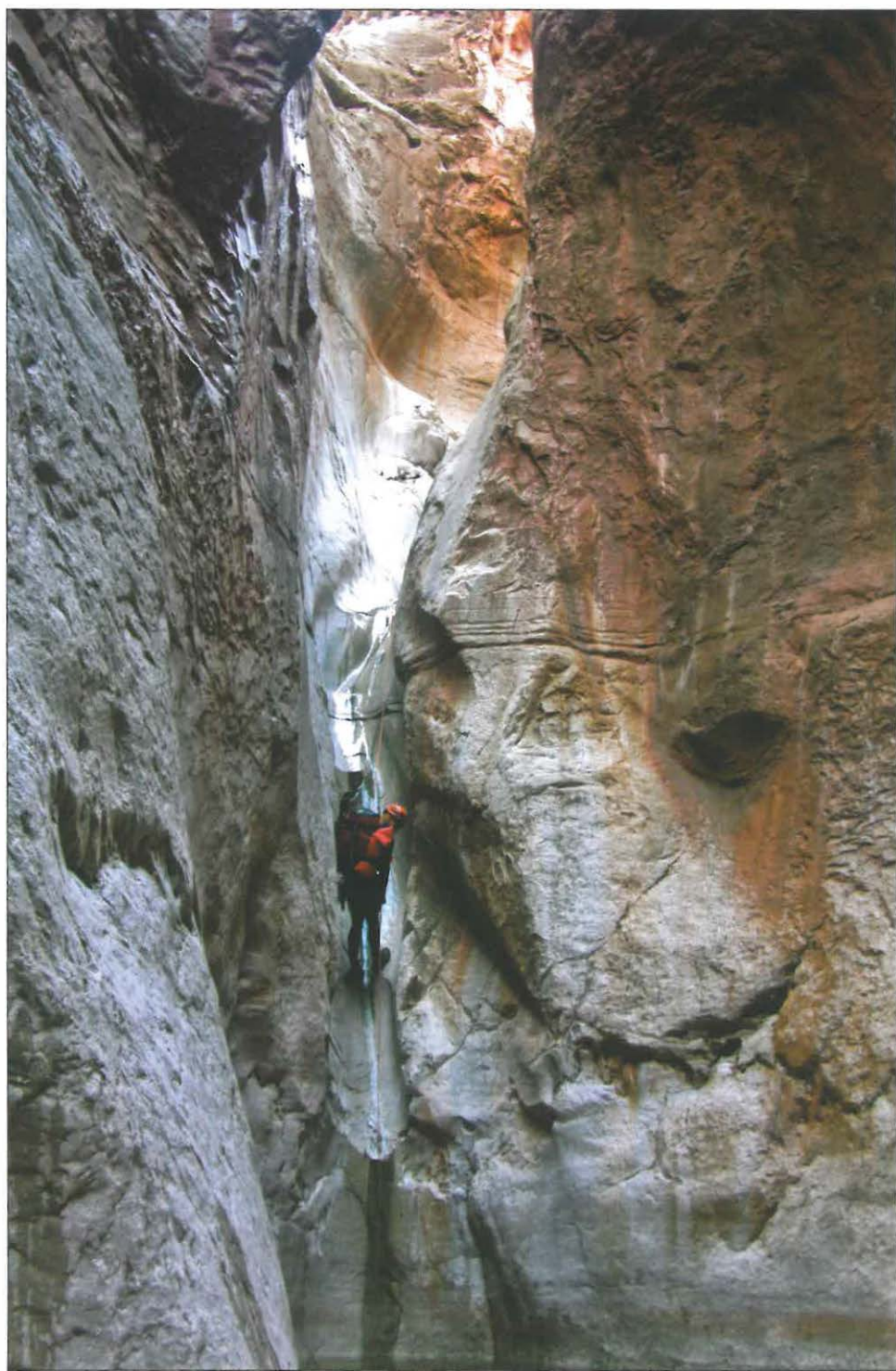
Cork Spring Canyon is a very nice canyon (4-stars). The problem lies in its remoteness. With no easy means of access, the pleasure of descending the canyon is offset to some extent by the misery of the approach and exit.



MAP 58: CORK SPRING CANYON







*Pocket Point Canyon Redwall narrows*

## 59: Pocket Point Canyon

**OVERVIEW:** Pocket Point Canyon probably has the most difficult and complicated approach of any canyon in this book. The route described descends Tuckup Canyon, and is followed by a packraft trip to National Canyon. We'll then ascend National to a climber's break that allows access to the top of the Redwall, then follow with a hike and another climb to reach the Esplanade. From that point, it is possible to contour around Flatiron Butte to finally arrive at our destination. A quick float back to Tuckup completes the loop.

**LOCATION:** Grand Canyon National Park. North and South Rims. Use areas: LB9, BU9

**REQUIRED GEAR:** 2x200' ropes, 50' webbing, 6 rap rings, harness, descender, helmet, carabiners, drybag, shoes with good traction, packraft, paddle, personal floatation device and a wetsuit.

**SPECIAL CONSIDERATIONS:** Water is available in lower Tuckup Canyon, at the Colorado River, and in National and Pocket Point Canyons. This canyon requires good navigational and natural anchor skills. All members of the group must possess excellent climbing skills. Camping gear must be kept dry through the pools in this canyon. River travel is required in order to complete this trip. This hike requires a permit from the National Park Service and a day-use permit from the Hualapai Nation.



**ACA Rating:** 3B VI

**Distance:** 40.6 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 5,670 – 1,765 ft.

**Time Needed:** 4 – 8 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Fern Glen Canyon,  
S B Point, Yunosi Point 7.5

**Navigation:** Difficult

### DRIVING DIRECTIONS

This hike begins at the Tuckup Trailhead. See description in Hike 60.

### TRIP DESCRIPTION

**TUCKUP DESCENT:** Follow the route down Tuckup Canyon (Hike 60) to its mouth and the Colorado River. Walk along the beach below Hundred and Sixtyfour Mile Rapids and inflate your packraft for the two-mile float trip to National Canyon. There are no significant rapids or riffles along the intervening stretch of river. National is the first major drainage on the south side of the river. Be aware that the mouth is difficult to see from the river until you're right at the top of the first riffle formed by the canyon.

**NATIONAL ASCENT:** Once in National Canyon, deflate your packraft and hike up the drainage. Water soon appears underfoot and shortly thereafter you'll enter some nice limestone narrows. About ½ mile from the river, progress will be blocked by a deep pool. The obstacle can be bypassed by locating a 40-foot vertical crack a short distance back from the pool on canyon left. There are plenty of good hand and foot holds to assist with the climb, but



you'll want to pull your packs up with a rope. Once on top, continue climbing along a cairned route to gain a ledge that may be followed for some distance upcanyon, bypassing a long stretch of Muav narrows. The path eventually drops back to creek level and we'll continue upcanyon through more pretty narrows, occasionally climbing or wading as needed.

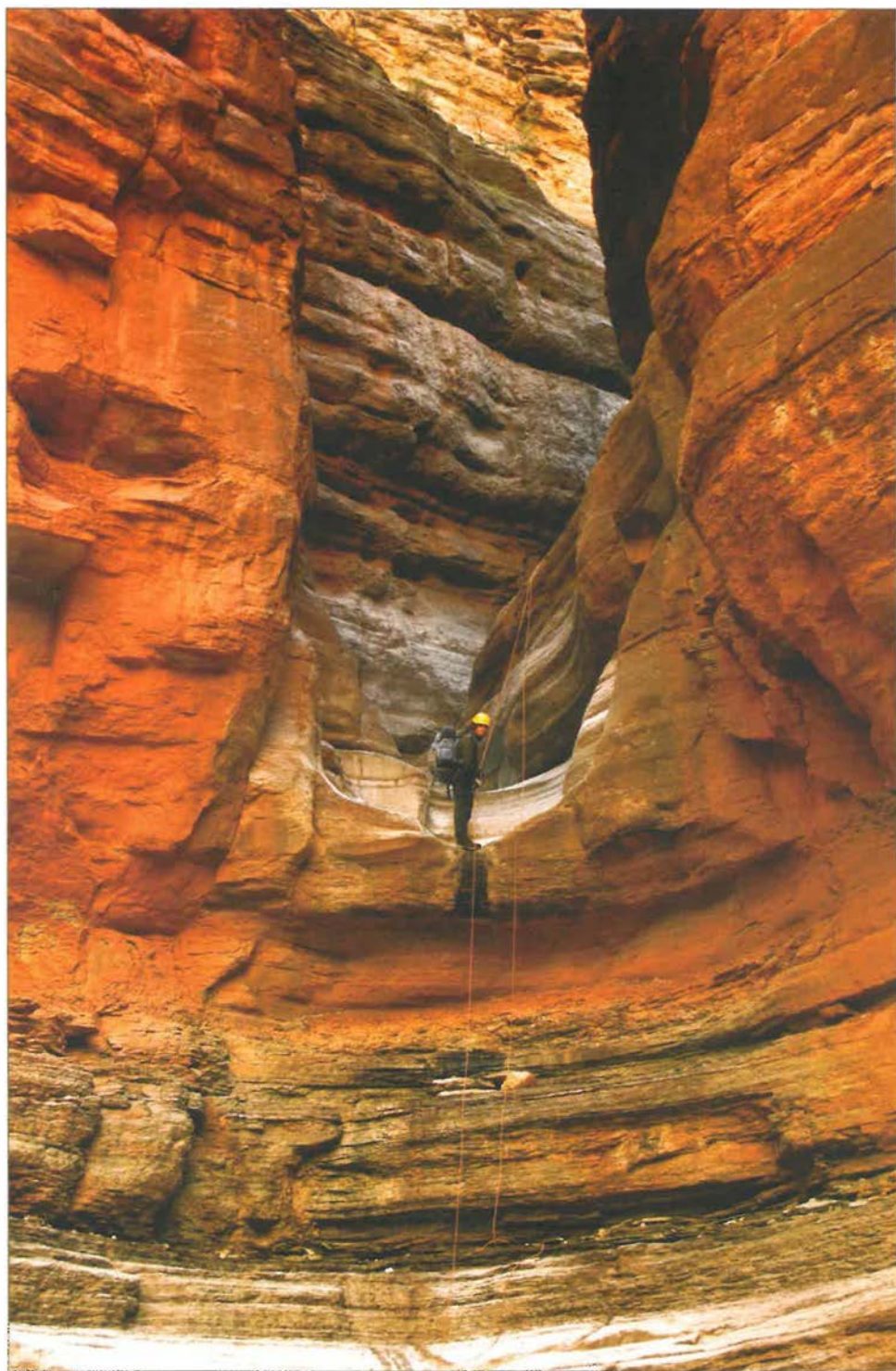
After some hiking you'll eventually reach a tributary canyon that enters from the left (facing upcanyon) at GPS point - UTM: 12S 330975 mE, 4009410 mN, WGS84 Datum. Turn left and travel up this canyon. Some pools and boulder problems will be encountered as you ascend. After wading through a narrow section scan the left side of the canyon (facing upstream) to locate a climbing route to the top of the Redwall near UTM: 12S 331182 mE, 4009020 mN, WGS84 Datum. The exit looks like a sheer, gray, bowl shaped feature and lies upcanyon from a ledge that runs along the cliff wall to its base. Like many obscure Grand Canyon routes, this exit will appear rather unpromising at first. On closer examination it is merely perilous and exposed. To get to the climb, hike up the hillside to the ledge then follow the ledge to the base of the climb where you'll find a large cairn (assuming it hasn't fallen over or someone hasn't knocked it down). From the cairn, climb straight up via whatever route catches your fancy. Though vertical and highly exposed, the carnivorous limestone provides a tremendous amount of friction (when it's not cutting through your bare skin).

From the top of the climb, continue upwards to gain the top of the Redwall bench above. Once on the bench, simply begin contouring northwards along the boulder and ocotillo dotted hillside, working your way in and around several other large tributaries of National as you do so. The goal is to hike approximately 6 miles to arrive at a drainage that features a break in the Supai Sandstone that allows access to the Esplanade above. The drainage may be found at UTM: 12S 332006 mE, 4013393 mN, WGS84 Datum. Though drudgery, much of the walking along the route is fairly easy.

Upon arriving at the wash, look slightly upcanyon and to the left (north) to identify a minor drainage and the only place where a potential break in the Supai exists. This is your exit and you'll want to climb up through rocks and brush towards its headwall at UTM: 12S 332495 mE, 4013669 mN, WGS84 Datum. Once again, the route seems unpromising as it travels up towards what appears to be an impenetrable dryfall. This time, however, you're in for a pleasant surprise. As you near the headwall, look to the left of the dryfall for a spot where breakdown has piled against the cliff face. As you climb up this breakdown, a previously invisible ramp appears that may be followed with little difficulty from left to right to gain the top of the headwall.

**POCKET POINT CANYON:** Continue up through the Supai to gain the Esplanade below Flatiron Butte. From here it's a simple matter of hiking along the path of least resistance around Flatiron Butte in a clockwise direction, then up and into the drainage of Pocket Point Canyon at UTM: 12S 334842 mE, 4013219 mN, WGS84 Datum. Descending through the Supai you'll encounter several boulder problems and pour-offs that may be negotiated without rope by working your way down or around on one side of the canyon or the other. Those looking for water may also encounter several pools, which were abundant when I was here.

Eventually you'll reach the Redwall limestone at which point you'll want to don the wetsuit you've been carrying these many miles. The canyon begins in earnest with a series of rappels in quick succession into gorgeous narrows. The first is 70 feet in length from a pinch point on the right, down and around a corner into a pool. The second rap is 20 feet long using a sling around a boulder in the bottom of the pothole. This is followed by a 35-foot rappel into another pool using a smallish boulder located underwater in a pothole at the top (assuming it



*The final rappel in Pocket Point Canyon*



hasn't been flushed out). You'll want to back this anchor up for all but the last person. Below you'll encounter a series of swims and downclimbs, followed by a 10-foot nuisance rappel from a pinch point on the left (or, after checking for hazards, just jump from the top into the pool at its base). Eventually the canyon opens up and the pools abate and you'll be faced with the standard rock-hopping, bouldering and downclimbing typical of wider Redwall areas. A few pour-offs will also be encountered that can be bypassed on one side or the other.

After some hiking, the canyon narrows again where it cuts through a layer of Temple Butte limestone. Some downclimbing, wading and possibly a short swim are required to get through this section. The narrows end in a 125-foot drop that can be rappelled using webbing threaded through a hole in the limestone on the right as an anchor. The canyon widens once again below and soon enters the Muav layer. No obstacles present themselves until you reach a point just above the river where the Muav forms a very short, but scenic slot. Using a pinch point on the right, complete a 2-stage, 175-foot rappel through the narrows and out the canyon's mouth (it would also be possible to complete the rappel using 2 separate anchors, reducing the amount of rope needed). Inflate your packrafts and walk down to the river's edge to begin the ½-mile float to Tuckup Canyon.

From the mouth of Tuckup Canyon, retrace your steps up this drainage to regain the rim and your vehicle.

## *AUTHOR'S RATING ★★*

Pocket Point Canyon is another excellent slot whose access difficulties reduce the rating. In my book it ranks as a four star canyon with a one star approach.

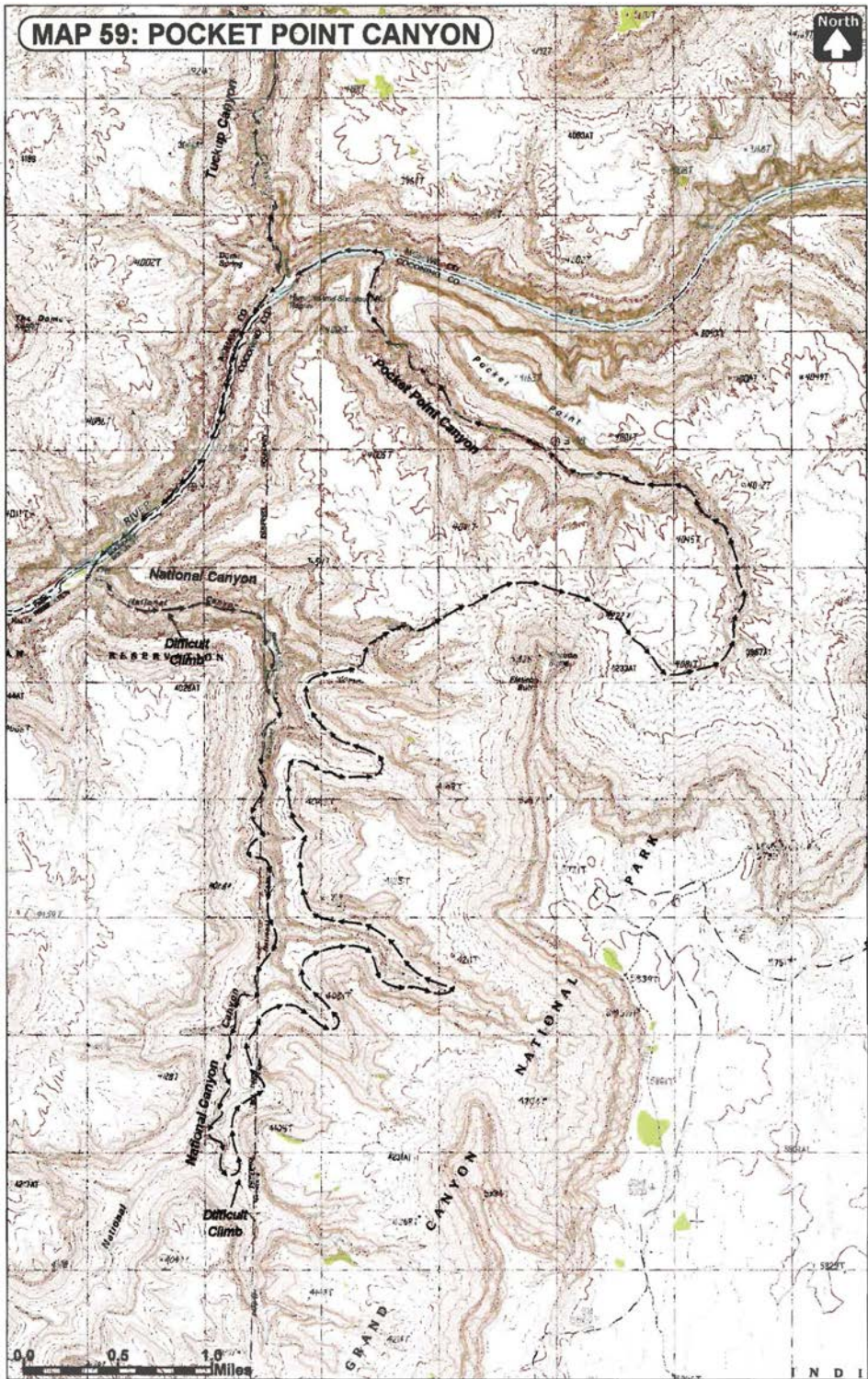
Rich Rudow, Todd Seliga, Pascal van Duin and I completed the canyon as a grueling 4-day trip beginning at S B Point with a descent of Cork Spring Canyon. I describe the hike from Tuckup since this route is by far the easier (though still far from easy) approach.



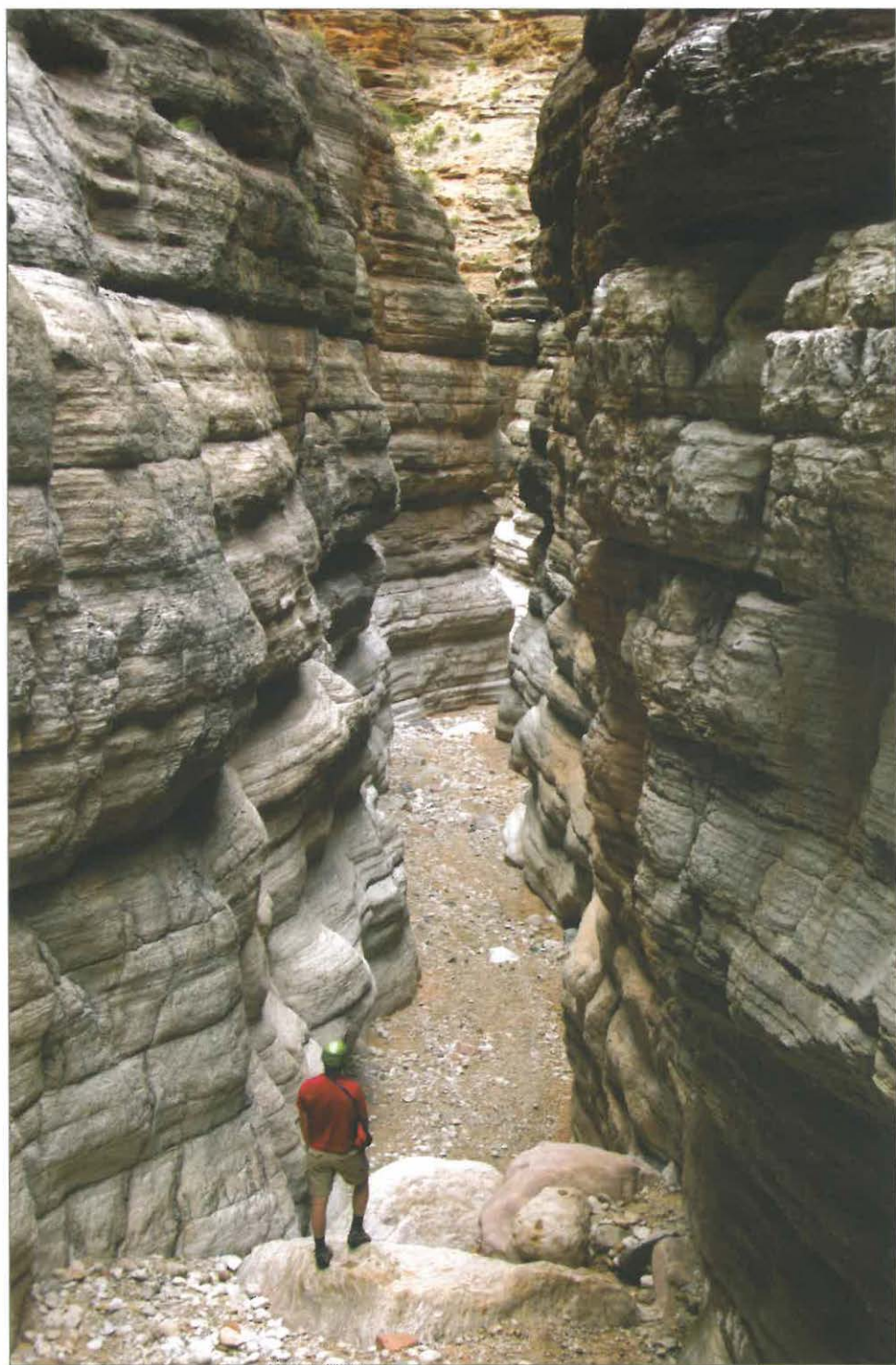
*National Canyon*



**MAP 59: POCKET POINT CANYON**







*The Muav Limestone narrow of Tuckup Canyon*

## 60: Tuckup Canyon and Tributaries

**OVERVIEW:** This hike covers Tuckup Canyon and three scenic technical tributary canyons. The eastern arm of Tuckup (which I'm calling Hades Knoll Canyon) is one of the easier technical canyons (and one of the prettiest), featuring two short rappels, and provides a good introduction to canyoneering for the experienced backcountry hiker looking to challenge themselves incrementally.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LCB

**REQUIRED GEAR:** Harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit is required during cooler weather. **Hades Knoll Canyon:** 1x100' rope, 25' webbing, and 2 rap rings. **Dome Pocket Canyon:** 2x150' ropes, 60' webbing, and 8 rap rings. **Rocky Point Canyon:** 2x100' ropes, 50' webbing, and 5 rap rings.

**SPECIAL CONSIDERATIONS:** Water is available at Schmutz Spring, Cottonwood Spring, in the Redwall narrows of Dome Pocket, Rocky Point, and Hades Knoll Canyons, in lower Tuckup Canyon and at the Colorado River. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B V-VI

**Distance:** Variable

**Physical Difficulty:** Strenuous

**Elevation:** 5,670 – 1,775 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Summer, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Fern Glen Canyon, S B Point 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

**CANYON:** From the small town of Fredonia, drive west on State Road 389 for 8.3 miles to between mileposts 25 and 24. Turn left (south) onto Mt. Trumbull Road. Zero your odometer and drive 22.5 miles on this well graded dirt road to a signed fork at a cattle tank. Left goes to Hack Canyon, while the road continues straight to Toroweap and Mt. Trumbull. Stay straight to the 27.1-mile point and continue straight at the sign towards Mt. Trumbull (26 miles).

I'll describe two routes to the trailhead, the first is best if coming from the north, the second is best if you're departing from Toroweap. All routes below pick up from the sign described above.

**Entry 1:** Drive to the 32.2-mile point and turn left at UTM: 12S 326532 mE, 4043047 mN, WGS84 Datum (or take the next left 0.1 miles later). Zero your odometer and drive 0.4 miles to arrive at June Tank, turn right after the cattle guard onto a fairly rough road and shortly thereafter right again. Remain on the main road, ignoring any minor branches along the way. At the 8.0-mile mark, you'll pass through a sign indicating the park boundary. Continue along the track to arrive at the end of the road and trailhead at the 16.0-mile point at UTM: 12S 327175 mE, 4023425 mN, WGS84 Datum.

**Entry 2:** At the 39.5-mile point, the road to Colorado City comes in from behind and to the right, and immediately afterwards, you'll pass a sign indicating your entry into Grand



Canyon-Parashant National Monument. Continue to the 41.2-mile point, where a road enters from behind on the left at UTM: 12S 316701 mE, 4035732 mN, WGS84 Datum. Zero your odometer and turn left to climb a hill soon passing another Grand Canyon-Parashant sign. Remain on this main track ignoring right branching roads at the 1.5 and 1.6-mile points, left branching road at the 2.9-mile point and right branching roads at the 3.5, 3.8 and 5.0-mile points. At mile mark 5.2, you'll come to a 4-way intersection and fence line, stay straight to drive around Hancock Knoll. Ignore the right branching road at mile point 6.6 and left branching roads at mile points 6.8, 7.3, and 7.6. At the 7.8-mile mark, you'll pass through a sign indicating the park boundary. Continue along the track to arrive at the end of the road and trailhead at the 15.7-mile point at UTM: 12S 327175 mE, 4023425 mN, WGS84 Datum.

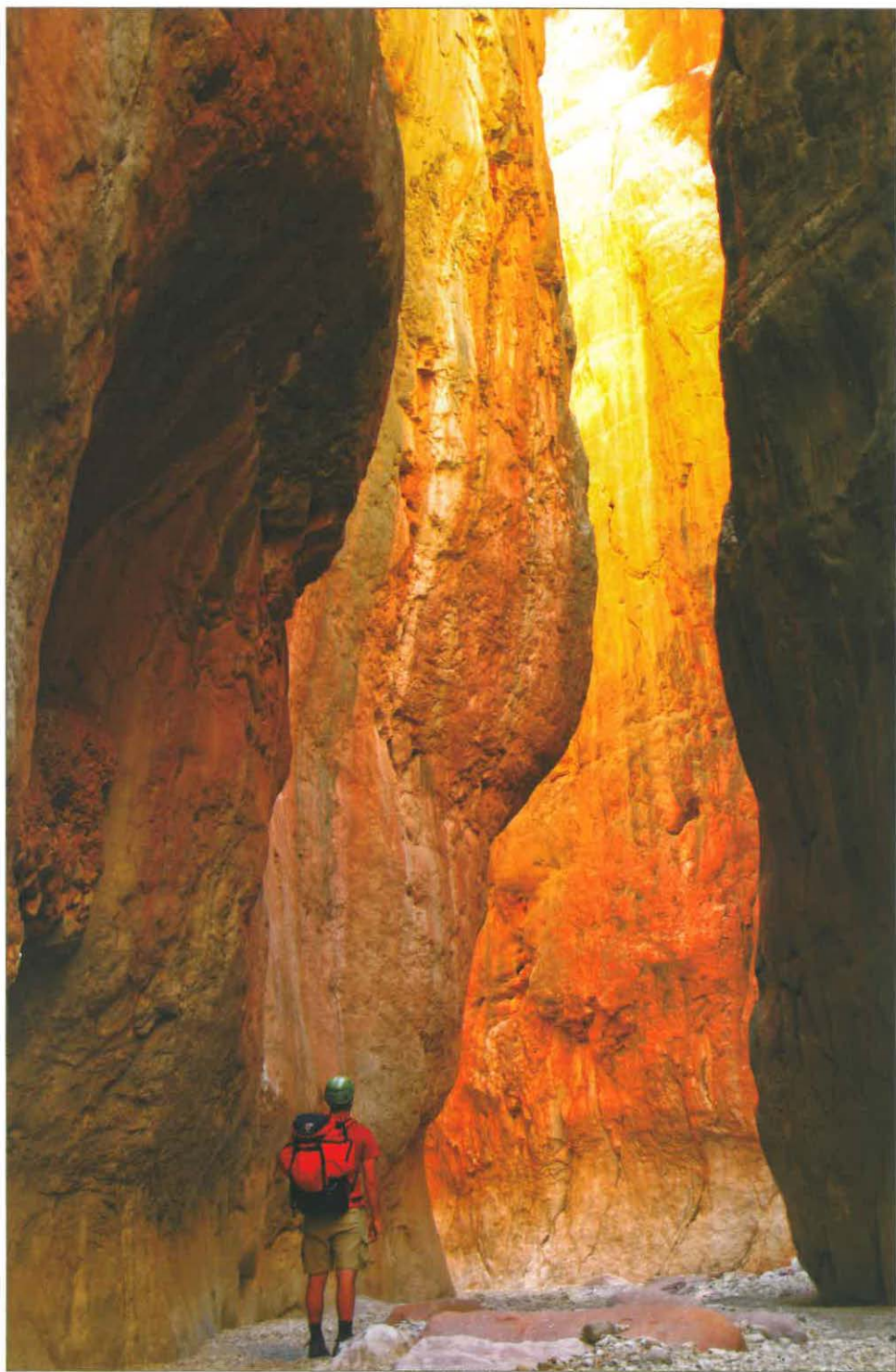
## *TRIP DESCRIPTION*

From the car park at the Tuckup Trailhead, pick up the well defined trail that begins behind the signpost. The descent from the rim entails an easy stroll through rolling hills, so easy in fact that it doesn't feel very much like the Grand Canyon. The trail soon forks (stay to the right) then continues its moderate descent into Tuckup valley where the path becomes more level as it travels across a wide, sandy area above the Supai Sandstone. Though I did not visit it, Schmutz Spring lies a short distance to the north of the first major dry wash crossed by the trail. The Park Service describes its location as "on a cutbank in the arroyo to the northwest". The location of the spring is also marked on the USGS Fern Glen Canyon 7.5-minute topographic quadrangle.

**HADES KNOLL CANYON:** Continuing north along the trail, the second major dry wash you'll cross is the main arm of Tuckup Canyon. Look carefully for cairns on the other side of the streambed marking the continuation of the trail. Follow the path as best you can for the next eight miles as it travels in a winding fashion through a hot, dry stretch of waterless and shadeless desert. Some sections of the trail are faint to non-existent and you may find yourself alternately losing and finding it again. The route proceeds in a southeasterly direction and works its way in and out of several minor eastern tributaries of Tuckup. If you find yourself off-track, the chances of picking the trail up again are increased in those spots where you're pressed between the cliffs on the left and an extended tributary of Tuckup on the right (being particularly distinct where it passes through sections of cryptobiotic soil).

Eventually, you'll pass around a promontory that juts into the canyon from the rim at which point the trail rounds this feature and bends to the east to then travel in a northeasterly direction towards the head of Hades Knoll Canyon. Continue up the eastern arm to its head to eventually enter the canyon via a minor drainage at UTM: 12S 334197 mE, 4022284 mN, WGS84 Datum. The canyon begins with some pleasant Supai narrows, which necessitate three downclimbs at chockstones to descend. The first of the downclimbs is the hardest and is best descended on the left to then walk beneath the large chockstone. After exiting the Supai narrows, the canyon becomes a very wide and rather uninteresting slog until you reach the Redwall Limestone.

After completion of the abovementioned trudge, descend into the Redwall to enter some scenic narrows and rappel #1, which is 50 feet in length using a knot-chock in a crack on the right (rocks are also available for construction of a bollard). Ramble downcanyon through a long and pretty slot that gets better with every step to eventually reach an enormous alcove, spring and pools. Not far below this feature is the second, and final, rappel, which is 20 feet in length from a sling around a chockstone. Below lie more scenic



*Hades Knoll Canyon*

narrows, interspersed with a few downclimbs and pools, at least one of which requires a chest deep wade. The walls of the canyon become somewhat wider as you proceed and you'll eventually be faced with a few moderately difficult downclimbs to get around some large boulders (less experienced members of the group may require a belay). Just above the confluence with the western arm of Tuckup, you'll arrive at a 50-foot drop-off. Retreat a few hundred feet to identify a use trail, which bypasses the drop on canyon right, to descend to the bed of the main arm of Tuckup a short distance above the confluence.

**Tuckup Confluence to the river:** Below the Hades/Tuckup confluence, the canyon enters the Muav Limestone and you'll pass through a section featuring a few boulder downclimbs. Only one of these drops presents any challenge, and this is due to the fact that you must first identify and crawl through a small hole on the left before descending several narrow ledges. Farther downcanyon look for a cairned trail that leads up and around on the right to bypass a long section of Muav narrows that contain a chockstone obstacle and pool (good climbers may wish to descend right down the drainage). The trail re-enters the canyon bottom and in another 300 yards you'll have the choice of either bypassing the lower narrows on the right (I've never used this route) or remaining directly in the streambed. Those who stay in the canyon bottom will be faced with two 20-foot climbs down trickling falls that offer solid hand and foot holds. A short walk through a pretty Muav slot will bring you to the mouth of the canyon and the Colorado River.

**Main Arm of Tuckup Canyon:** Retrace your steps from the river back to the junction of the western and eastern arms of Tuckup. Stay left (facing upcanyon) at this confluence to remain in the main (western) drainage. Soon, you'll encounter an interesting natural bridge formed from conglomerate rock. Above the bridge, the canyon forms a very nice section of extended Redwall narrows. Other than a few boulders littering the area that must be scrambled over, there is only one obstacle of note, a chockstone that presents a moderately difficult challenge to climb (a boost from below will allow less experienced climbers to get up). After some hiking, the canyon passes a junction with Cottonwood Canyon, which enters from the left and just beyond enters the Supai Sandstone. Stay to the right in the main arm and continue up through the Supai to enter a wide and rocky dry wash. Remain to the left at any junctions to eventually arrive at the intersection with the trail you had hiked in on earlier. Turn left and retrace your steps following the trail to the Tuckup Trailhead, the rim, and your vehicle.

**DOMES POCKET CANYON:** The approach to Domes Pocket Canyon is described from the rim, travelling west along the Tuckup Trail to enter the canyon above the Supai. Another option (though I have not done it), would be to follow the approach described below for Rocky Point Canyon, except to continue south along the top of the Redwall for another mile to head of the Redwall narrows in Domes Pocket Canyon. This latter route would avoid the long slog across the Esplanade.

Follow the directions at the start of this description from the trailhead down through the limestone and Coconino layers to the Esplanade. Just before the trail crosses the first major dry wash, bend right (south) to follow the route marked on the map for the Tuckup Trail. Note: I say follow the marked route as opposed to the trail because the latter is, for all practical purposes, non-existent in this area. At any rate, hike to the south across the sandy, sage-dotted flats choosing the path of least resistance. The route eventually bends more



to the west as you work your way up and into the large drainage of Cottonwood Canyon, crossing several steep ridges as you do so. Eventually you'll cross Cottonwood near UTM: 12S 327993 mE, 4022253 mN, WGS84 Datum approximately 5.5 miles after departing the trailhead. Those looking for water should hike up this drainage a short distance to Cottonwood Spring, which had several pools deep enough to filter when I was here in early September. (Hikers Note: The route through Cottonwood Canyon into Tuckup is reported to be non-technical, though I have not completed this hike.)

Surprisingly, the Tuckup Trail is cairned as it leaves Cottonwood Canyon, and you'll want to locate the path, because it is actually quite well defined south of Cottonwood making for easy hiking. The trail winds its way to the south to skirt the head of Rocky Point Canyon before eventually arriving at Dome Pocket Canyon approximately 3.5 miles after departing Cottonwood at UTM: 12S 328914 mE, 4019425 mN, WGS84 Datum. Leave the trail at this point, and begin heading down canyon through the upper Supai Sandstone. The route through the Supai is a fairly long and tedious boulder-filled slog featuring a few downclimbs and bypasses to avoid obstacles, but otherwise presents no significant challenges.

After some hiking, you'll finally arrive at the Redwall Limestone which soon forms a shallow slot. Not far into the limestone, you'll arrive at the first rappel which is 35 feet in length using a rock wedged under a shelf on the left as an anchor. The second rappel presents itself a short distance later, and is 75 feet long from a rock pile at the top of the drop. You'll now find yourself in a very nice slot dotted with interlinked pools that will require a short wade. After crossing one such pool, you'll arrive at rappel #3 which may be rigged by slinging some rocks on the right that are wedged behind a very large boulder. The drop is 40 feet long into a chest deep pool that, while not a true keeper pothole, may be a little tricky to climb out of if conditions are muddy and the water level is low. Have a partner provide a boost if you have any difficulty with the exit. After a short jaunt through a pretty hallway, you'll reach the forth rap which is 35 feet in length into a shallow pool using a rock wedged in a dissolution hole on the right. A stroll down another nice hall will bring you to a nuisance rappel of 15 feet that can be rigged from a large rock in a pothole some distance back from the edge (requiring a 100-foot rope). This is followed by a double drop totaling 100 feet in length, the first of which is into a pool. A pinch point on the left at the top may be used as an anchor.

The canyon widens below, dropping steeply through a field of large boulders that will require some climbing, route-finding, and possibly a rappel or two to get through (we wound up doing one 30-foot rappel in this section to descend one particularly steep pitch. The final rappel is found at the bottom of the boulder field and is 120 feet in length using a Redbud tree at the top as an anchor. A short walk below will bring you to the junction with Tuckup Canyon. Left (north) will bring you up and out of the canyon, while right (south) leads down to the Colorado River.

**ROCKY POINT CANYON:** The easiest approach to the Redwall narrows of Rocky Point Canyon is from within Tuckup, so I'll describe the route beginning at the confluence of these two drainages.

From the mouth of Rocky Point Canyon, walk up Tuckup Canyon to the north for about 0.5 miles to an obvious break in the Redwall on the west at UTM: 12S 331136 mE,

# WESTERN GRAND CANYON

4020879 mN, WGS84 Datum. Leave the canyon bottom and climb up through this break to gain the top of the Redwall. Once on top, simply hike down and around to the south to the top of the Redwall Narrows of Rocky Point.

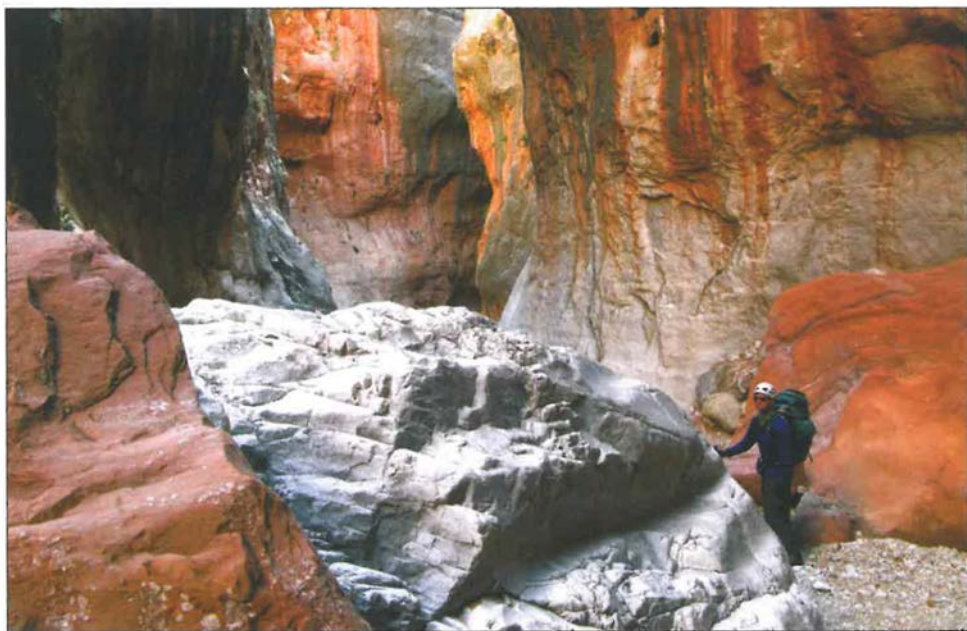
The canyon begins with a 30-foot rappel from a rock pile in a pothole at the top into a pool. Not far below lies a pour-off that may either be rappelled or bypassed by following a bench around on the left then completing a moderately difficult downclimb to return to the canyon bottom. The next rappel is 70 feet in length using a pinch point on the left formed by a huge boulder at the top into a pleasant, though not terribly narrow canyon. Hike downcanyon a short distance to rappel #3, a 70-foot double drop (the first one into a pool, the second into a pothole) from a pinch point on the left. Exit the pothole by rappelling 30 feet from a sling through another pinch point on the left into a deep and scenic slot. Continuing downcanyon you'll soon arrive at the final rappel, which is 80 feet in length using a sling around a small but sturdy rock horn up on a bench on the left as an anchor. A short walk will bring you out of the slot to a junction with Tuckup Canyon. Left (north) will bring you up and out of the canyon, while right (south) leads down to the Colorado River.

## *AUTHOR'S RATING*

Tuckup and Hades Knoll Canyons: ★★★★★

Western Tributaries: ★★★★★

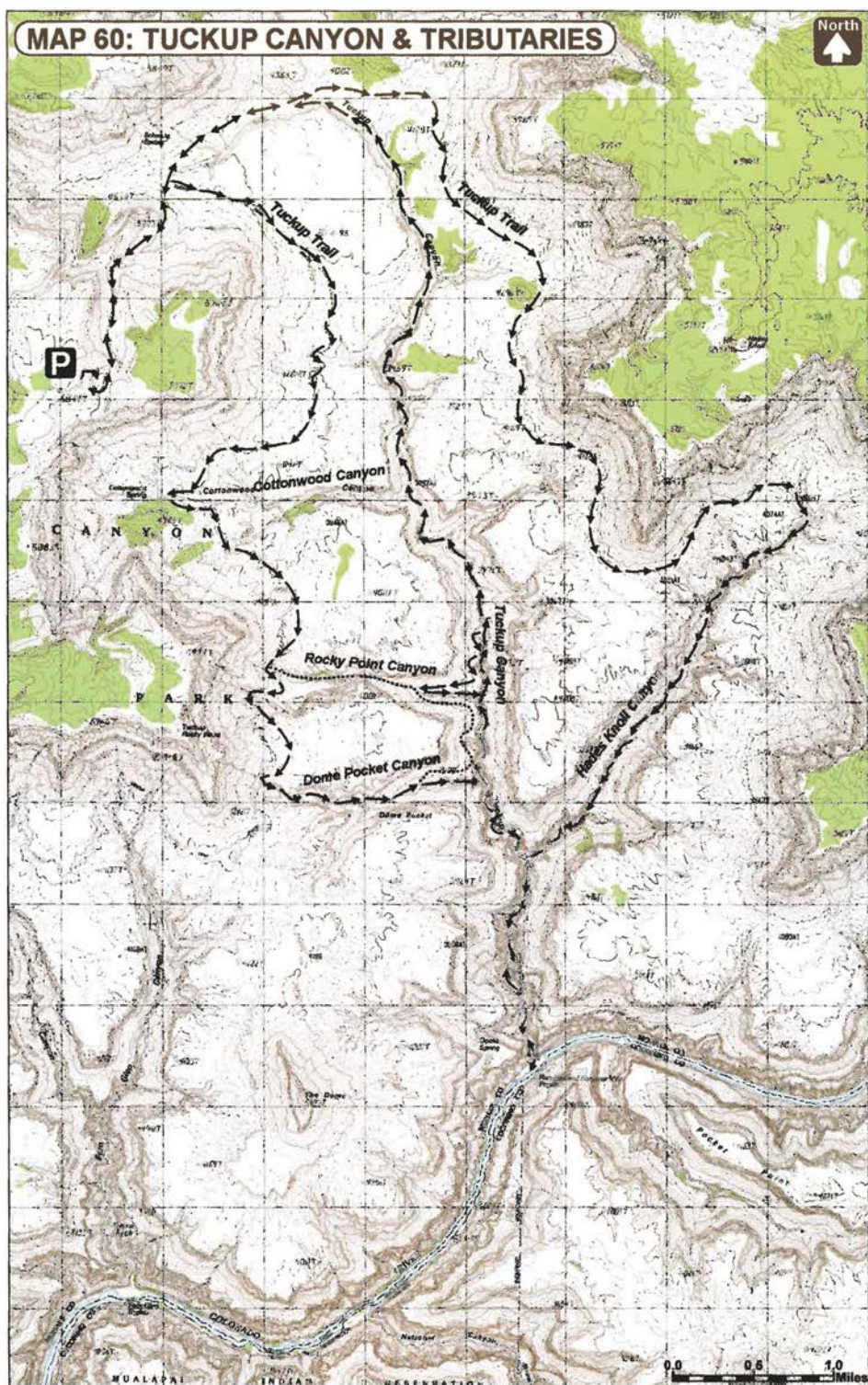
Although the slog along the Esplanade is a bit of a grind, the scenic narrows of the tributary canyons more than make up for the effort. Rich Rudow, Albert Putzig and I completed a hike down Hades Knoll canyon and up Tuckup as a two day trip. The first day we hiked 10 hours to camp at the confluence of the western and eastern arms. On the second day, we carried a light daypack to the river and back then hiked out the western arm to the rim in about 7.5 hours. At a later date Rich Rudow and I completed the two western tributaries in 1.5 days.



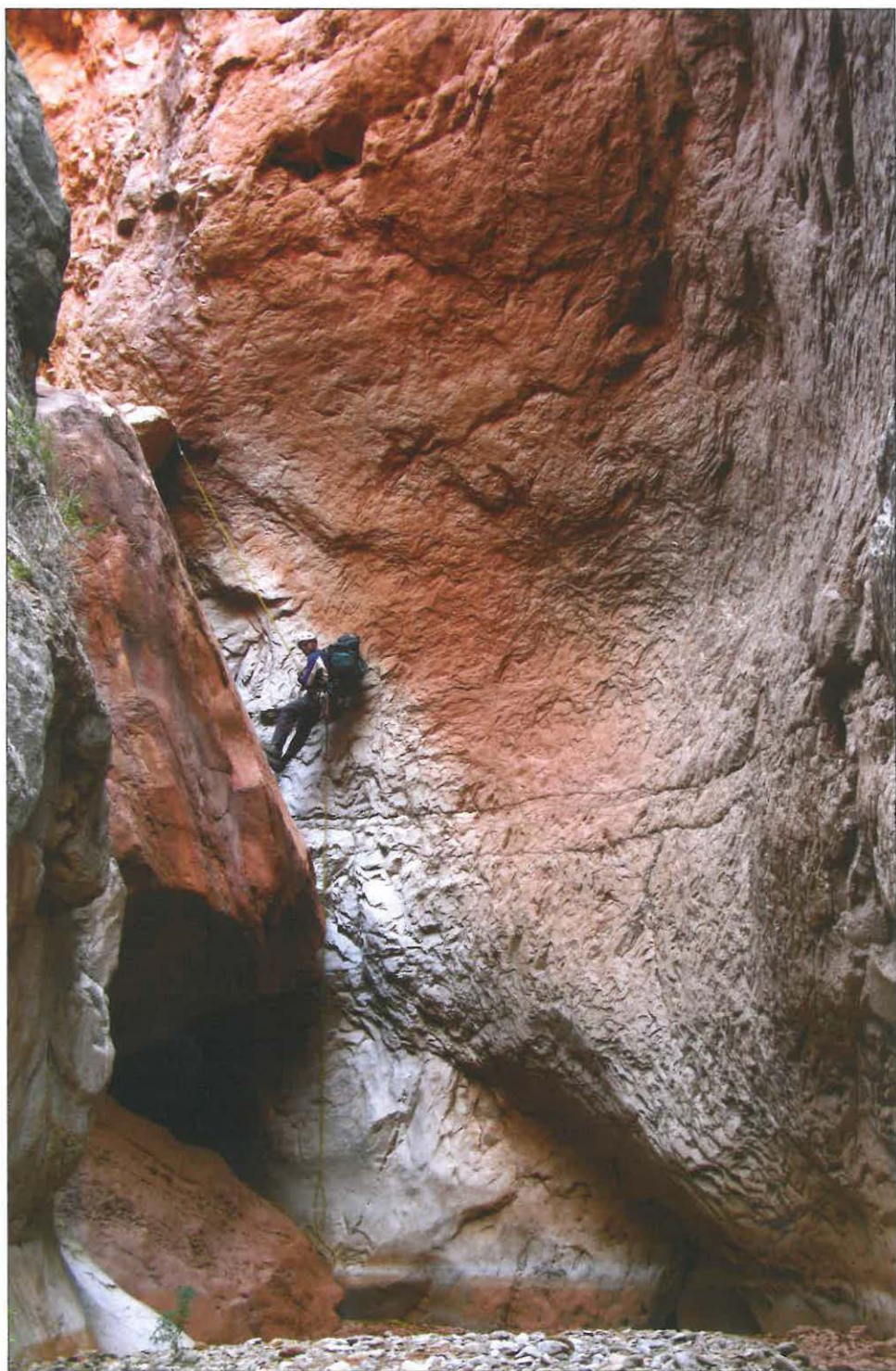
*Multicolored stone in Hades Knoll Canyon*



# TUCKUP CANYON AND TRIBUTARIES







*Willow Canyon*

## 61: Willow and Fern Glen Canyons

**OVERVIEW:** Two remote backpacking/canyoneering/packrafting trips through remote and beautiful canyons. The trips may be done as a loop with a single car by exiting the river using Stairway Canyon and returning to the rim from the Esplanade via the entry route, or with a car spot by hiking out the Lava Falls Route. In either case, river travel is required.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LC9

**REQUIRED GEAR:** Harness, descender, helmet, carabiners, drybag, shoes with good traction, packraft, paddle and personal floatation device. A wetsuit is required during cooler weather. **Willow Canyon:** 2x100' ropes, 60' webbing, and 8 rap rings. **Fern Glen Canyon:** 2x200' ropes, 70' webbing, and 9 rap rings.

**SPECIAL CONSIDERATIONS:** Water is available at Willow Spring, in Willow Canyon, in the Redwall in Fern Glen Canyon and at the Colorado River. These canyons require good natural anchor skills. All members of the group should possess good climbing skills. Camping gear must be kept dry through the pools in these canyons. River travel is required in order to complete these trips. The hikes require a permit from the National Park Service.



<b>ACA Rating:</b> 3B VI	<b>Distance:</b> 19.7 – 21.5 miles
<b>Physical Difficulty:</b> Extremely Strenuous	<b>Elevation:</b> 6,100 – 1,670 ft.
<b>Time Needed:</b> 2 – 4 days each	<b>Best Time of Year:</b> Spring, Fall
<b>Vehicle:</b> High Clearance	<b>Car Shuttle:</b> Optional (see description)
<b>Maps:</b> USGS Fern Glen Canyon, Gateway Rapids, Vulcans Throne 7.5	<b>Navigation:</b> Difficult

### DRIVING DIRECTIONS

**CANYON:** From the small town of Fredonia, drive west on State Road 389 for 8.3 miles to between mileposts 25 and 24. Turn left (south) onto Mt. Trumbull Road. Zero your odometer and drive 22.5 miles on this well graded dirt road to a signed fork at a cattle tank. Left goes to Hack Canyon, while the road continues straight to Toroweap and Mt. Trumbull. Stay straight to the 27.1-mile point and continue straight at the sign towards Mt. Trumbull (26 miles).

I'll describe two routes to the trailhead, the first is best if coming from the north, the second is best if you're departing from Toroweap. All routes below pick up from the sign described above.

**Entry 1:** Drive to the 32.2-mile point and turn left at UTM: 12S 326532 mE, 4043047 mN, WGS84 Datum (or take the next left 0.1 of a mile later). Zero your odometer and drive 0.4 miles to arrive at June Tank, turn right on a fairly rough road and immediately thereafter right again. Remain on the main road ignoring any minor branches along the way. At the 8.0-mile mark, you will pass through a sign indicating the park boundary. Continue along the track to arrive at a small pull off on the right at the 14.0-mile point at UTM: 12S 324118 mE, 4023273 mN, WGS84 Datum.

**Entry 2:** At the 39.5-mile point, the road to Colorado City comes in from behind and to the right and, immediately afterwards you'll pass a sign indicating your entry into Grand Canyon-Parashant National Monument. Continue to the 41.2-mile point where a road enters from behind on the left at UTM: 12S 316701 mE, 4035732 mN, WGS84 Datum. Zero your odometer and turn left climbing a hill. Remain on this main track ignoring the following: right branching roads at the 1.5 and 1.6-mile points, left branching road at the 2.9-mile point and right branching roads at the 3.5, 3.8 and 5.0-mile points. At mile mark 5.2 you'll come to a 4-way intersection and fence line, continue straight to drive around Hancock Knoll. Ignore the right branching road at mile point 6.6 and left branching roads at mile points 6.8, 7.3, and 7.6. At the 7.8-mile mark, you pass a sign marking the park boundary. Continue along the track to arrive at a small pull off on the right at the 13.7-mile point at UTM: 12S 324118 mE, 4023273 mN, WGS84 Datum.

**OPTIONAL CAR SPOT (LAVA FALLS ROUTE):** At the 39.5-mile point, the road to Colorado City comes in from behind and to the right and immediately afterwards you'll pass a sign indicating your entry into Grand Canyon Parashant National Monument. Continue to the 45.7-mile point where the road splits with the right branch heading to Mt. Trumbull. Stay straight, following the sign towards Toroweap. At the 52.5-mile point you'll enter Grand Canyon National Park shortly after crossing a cattle guard. At the 56.5-mile point, turn right at the small sign indicating the Lava Falls Route – High Clearance Recommended. Follow this rougher road 2.3 miles to its end at a parking area and trailhead.

## TRIP DESCRIPTION

From the car park, walk southwards down the closed dirt road as it winds its way through the forest for 2.3 miles to a point where the Canyon rim is visible and the road bends left (east). Leave the road at the bend and walk to the rim to a point near UTM: 12S 324750 mE, 4020172 mN, WGS84 Datum so that you can look down and get an idea of this rather complicated entry route.

Immediately to the right (west) will be a steep slope, to the left (east) somewhat farther off is a steep gully and directly below is a ridge that features some limestone pinnacles, one of which is considerably larger and more prominent than the others. You may also see cliff bands in the Toroweap and Coconino formations. It's these cliffs that make the entry so convoluted.

With the features above identified, follow the slope to the south down to a cliff band in the limestone. Proceed left at this point to the base of the large limestone tower. Work your way down just to the left of this tower on a very steep slope filled with loose rocks. This route will take you between several smaller limestone pillars and requires extreme caution, both to prevent falling and to avoid loosening rocks on those below. The talus slope ends in a downclimb of a 5-foot vertical escarpment to an area with somewhat more secure footing. Walk to the left to gain the nose of the ridge and follow the ridge downwards towards a cliff band in the Toroweap.

Just before reaching the Toroweap cliff, turn left (east) and contour along a series of sheep trails (climbing higher or lower as necessary) until you reach the steep gully



described earlier. It's possible, with some additional climbing on loose rocks, to enter the gully just west of the main channel. Once you've entered this drainage, the route becomes a straightforward (though non-trivial) matter of working your way down the boulder strewn ravine through the Coconino to eventually gain the Esplanade.

**WILLOW CANYON:** Remain in the drainage and follow it down to eventually reach the Supai Sandstone where you'll find some water, which trickles down from Willow Spring. The water is somewhat mineralized, but I found it to be drinkable. Continue down through the Supai to pass through some moderate narrows where you'll find a series of boulders that require some routefinding to negotiate. Eventually, you'll arrive at a drop-off that requires rope. A tree on the right may be used as an anchor for a 25-foot rappel. Another drop-off lies just below but this one can be bypassed with some difficulty by climbing around on the left.

After some hiking, the canyon enters the Redwall Limestone and a few minor downclimbs and pour-offs that must be bypassed. The first pour-off is formed by a large chockstone and may be bypassed by way of a shelf on the right. A short distance later, you can climb back down into the canyon using some steep ledges. The next drop-off can be downclimbed by passing through a hole on the right between a chockstone and the canyon wall. The third can be downclimbed via a crack on the right. The first rappel lies at the base of this last obstacle and is 40 feet in length using a pinch point on the right as an anchor (there is also an old bolt on the chockstone that forms the drop, but given its age and condition it is best ignored).

The canyon widens somewhat below and you'll find yourself hiking through a Redwall gorge that is mildly, though not terribly scenic. After quite a long slog, as you approach the confluence with Fern Glen Canyon, you'll hit 3 rappels in quick succession. The first is 35 feet in length using a rock wedged under a ledge on the left as an anchor. Next is a 40-foot rappel down a sculpted travertine falls using a pinch point in the canyon bottom as an anchor. The final rappel is 50 feet into a beautiful grotto, which features a pool and ferns sprouting from the walls. A pinch point on the right may be used as an anchor. A short stroll below will bring you to the confluence with Fern Glen Canyon.

**FERN GLEN CANYON:** Once on the Esplanade, continue hiking to the south and east scanning the ground for the Tuckup Trail, which is fairly faint and disused in this area. Once you've located it, turn left (east) onto the Tuckup Trail and follow it as it winds its way in a maddeningly meandering fashion in and out of a number of minor drainages in the upper arms of Willow Canyon. Eventually, you'll reach the western upper arm of Fern Glen Canyon at a point near UTM: 12S 327400 mE, 4019151 mN, WGS84 Datum. Work your way down into the canyon at a point that's convenient.

Traveling down Fern Glen, you'll soon reach a large drop-off in the Supai that may be bypassed by working your way around on the right to descend a steep, unpleasant slope. Farther downcanyon, you'll arrive at a 25-foot drop, which may be rappelled using a tree at the top as an anchor. Just below the rappel is a downclimb on the left, which passes beneath a large chockstone. There's one more nuisance rappel in the Supai, which is about 20 feet in length from a large boulder at the top. The canyon then widens and the

walking becomes easier until you arrive at the Redwall Limestone.

Entering the Redwall, you'll soon encounter two short drops of 8–10 feet in length. The first can either be rappelled or descended using a last-man-at-risk technique. The second may be rappelled from a pinch point at the top into a pool. You'll then arrive at the biggest drop in the canyon, which consists of a 200-foot, 3-stage rappel from a constructed rock pile. The first stage of the rappel is the longest and ends in a deep pool (swimming required), followed by a shorter rappel around a corner into another pool, then a final drop into a rocky hall. Be sure to keep twists out of your rope to ensure a clean pull around the corner. After stowing your ropes, continue downcanyon through a short section of deep Redwall narrows. The canyon then opens up a bit and soon enters the Muav Limestone.

A few downclimbs are required in the Muav and, just above the confluence with Willow Canyon, a rappel of 60 feet ending in a large pool is required using a pinch point on the left as an anchor. If you de-rig from the rope on a ledge just above the pool you can avoid the swim by negotiating some ledges on the left.

**WILLOW/FERN GLEN CONFLUENCE:** Willow Canyon provides the bulk of the flow to lower Fern Glen Canyon; unfortunately, the water is mineralized at this point and has a rather bad taste. The walking becomes easier below the Willow/Fern Glen confluence and a 30-minute hike will bring you to a 70-foot rappel from 2 bolts and hangers (one old, one new) at the top of the drop. Continue downcanyon through a beautiful section of layered Muav narrows and pools. Be sure to keep your eyes open for a large natural arch that can be seen in a Redwall fin high above the canyon on the left. The arch is supposedly the largest in Grand Canyon National Park.

Continuing downcanyon, you'll eventually come to a series of drops, the first of which may be bypassed along some ledges on the right. The second consists of a 30-foot rappel from two bolts and hangers followed by a short walk to a 12-foot drop into a pool. You can either slide or be belayed down into the pool or attempt a tricky climbing move to bypass this obstacle on the left. You'll now be standing at the top of the last rappel, which is 50 feet in length down a trickling travertine falls using a knot-chock in a crack on the left as an anchor. Once down, it's a fairly straightforward hike the remainder of the way to the mouth of the canyon and the Colorado River. Inflate your packraft and secure your critical gear in drybags in preparation for a river trip.

**EXIT 1 – STAIRWAY CANYON:** Those with a single car parked on the rim above Fern Glen Canyon will float 3 miles downriver to Stairway Canyon, which is the first major drainage on the right. Though not terribly scenic, the canyon offers a fairly quick route back up to the Esplanade. Be aware that the exit up Stairway requires some route-finding and has one moderately difficult climbing maneuver. There should be at least one good climber in the group if attempting this route.

From the mouth of Stairway Canyon, hike up the rocky streambed. There are a few climbs up small cliffs in the Muav, but nothing difficult. Heading into the Redwall you'll be faced with standard hiking and rock-hopping interspersed with boulder climbing until you eventually reach a dryfall that cannot be climbed. Backtrack a short distance to

locate a route up and around on the right (facing upcanyon) along a crumbly slope. Immediately after climbing back down into the canyon, you'll be confronted with a 10-foot cliff band that stretches between the canyon walls. The band can be easily climbed at a section that is somewhat more slanted than the rest, however if you continue upcanyon from this point your path will soon be blocked by a shear 50-foot dryfall. Instead, follow the top of the small cliff band to the left side (facing upcanyon) to locate a steep chute. Climb straight up the chute until you are quite high above the canyon floor to a point where you can contour around in an upcanyon direction to locate a cairned path that leads back to the canyon floor.

Continue upcanyon, route-finding where necessary to bypass more chockstones to eventually arrive at a junction with a fork that enters from the left. Stay to the right and hike for about 10 minutes while scanning the left side of the drainage (facing upcanyon) for a steep slope that looks like it can be climbed. It can, in fact, be climbed and you'll want to do so since there is a 300-foot vertical dryfall just around the corner that will soon block further progress. Climb up to the left (west) to ascend the steep slope. As you get higher on the wall you'll want to work your way to the north in an upcanyon direction. Eventually, you'll arrive at the final obstacle, which consists of a 25-foot vertical crack. Send your best climber up the crack first then throw them a rope to aid the rest of the party. The first 5 feet of the climb are the hardest, but can be safely spotted from below.

Once up, you'll travel to the right to follow a path along the edge of the canyon to the top of the 300-foot dryfall. It's more standard Canyon fare above as you rock-hop and boulder-climb up into the Supai Sandstone to eventually arrive at a fork at UTM: 12S 324395 mE, 4015181 mN, WGS84 Datum. It's possible to get out via the left fork by climbing up a series of boulders to a pour-off, which can be bypassed via a vertical 25-foot climb on the left (facing upcanyon). Once above the pour-off, it's a straightforward slog the remainder of the way to the top of the Supai and the Esplanade. If you search around carefully on the Esplanade, you may be able to locate the Tuckup Trail, which is rather faint and difficult to identify, but will provide somewhat easier travel than cross-country hiking. Follow the Tuckup Trail north to eventually enter Willow Canyon at a point near the spring.

**EXIT 1 – THE WAY YOU CAME IN:** Head east into the next Willow tributary, then retrace your steps northwards back up the Willow drainage you had used as an entry earlier in the trip to the rim, the road and your car.

**EXIT 2 – CATTLE TRAIL:** This route roughly climbs out of the canyon via a route directly to the west of Willow Spring. Though a good deal longer than "the way you came in" it has the advantage of both being somewhat easier to follow, as well as becoming shaded earlier in the afternoon. For these reasons, I'd recommend it as a viable exit route.

From Willow Spring, walk upcanyon a short distance, then climb out on the left (west) and carefully scan the ground for a faint trail and/or a few cairns. The route climbs up to the west following a steep slope. Cairns spaced at infrequent intervals mark the way up. The higher you climb, the looser the soil and rocks become, use caution so as not



to send rocks tumbling down in the direction of those below. After some climbing, the route takes a sharp bend to the left to gain a ridge, which it then ascends the remainder of the way to the rim exiting at large cairn at UTM: 12S 323618 mE, 4018441 mN, WGS84 Datum. Travel cross-country to the west and slightly north to eventually hit an old, closed road. Follow the road to the north and east for about 5 miles to eventually arrive back at the road on which you had driven in on and your vehicle.

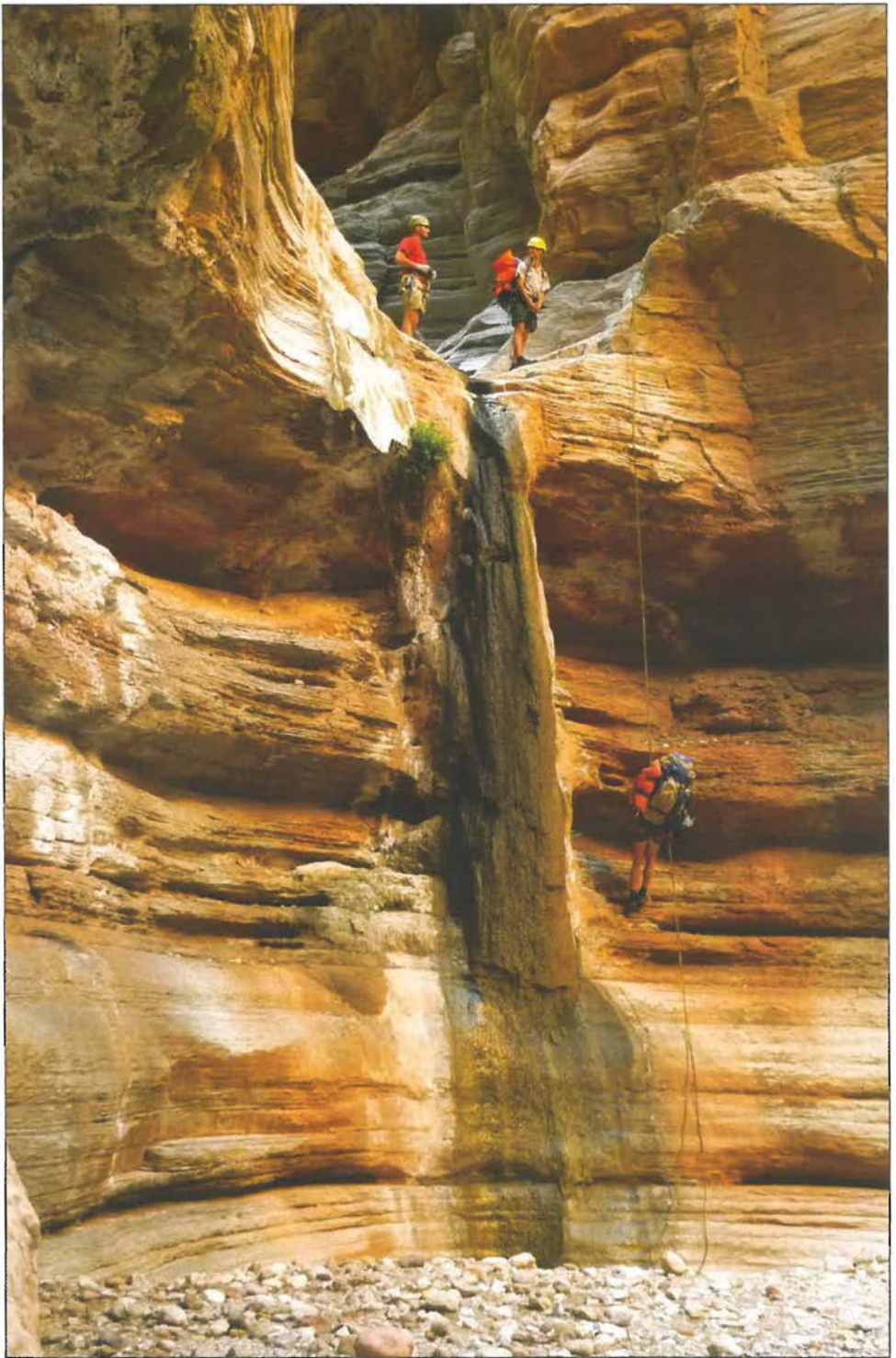
**EXIT 3 – LAVA FALLS ROUTE:** Those who spotted a car at the Lava Falls Trailhead have an 11-mile float trip in store. The trip is largely uneventful, though you'll want to bypass Gateway Rapids at the mouth of Mohawk Canyon at the 3-mile point by portaging around them on the beach on river left. There are several other sections of minor riffles along the way, which may be rafted or portaged depending on river conditions and your comfort level. About a mile after passing a black lava pinnacle (called "Vulcan's Forge" or "Vulcan's Anvil"), which sticks up from the middle of the river, you'll come around a corner to hear the roar of Lava Falls Rapids in the distance. Lava Falls is one of the more notorious rapids in the Canyon; fortunately, we'll be exiting the river on the right about ¼-mile above the rapid. Regrettably, there's no convenient take-out on which to beach your raft, instead you'll have to pull over at any convenient set of low rocks near UTM: 12S 313129 mE, 4008073 mN, WGS84 Datum.

Once out of the river, deflate and store your raft and look for the series of cairns that mark the Lava Falls Route (see Map 62). The route is a steep 1.5 mile climb straight up and out of the canyon following a series of braided trails. Portions of the lower part of trail are particularly unpleasant where it travels through gullies of loose scree. Choose a cairned route that travels over secure boulders where possible. The route eventually tops out at the Lava Falls Trailhead and the car you spotted earlier.

## *AUTHOR'S RATING*

**Fern Glen Canyon: ★★★★★      Willow Canyon: ★★★**

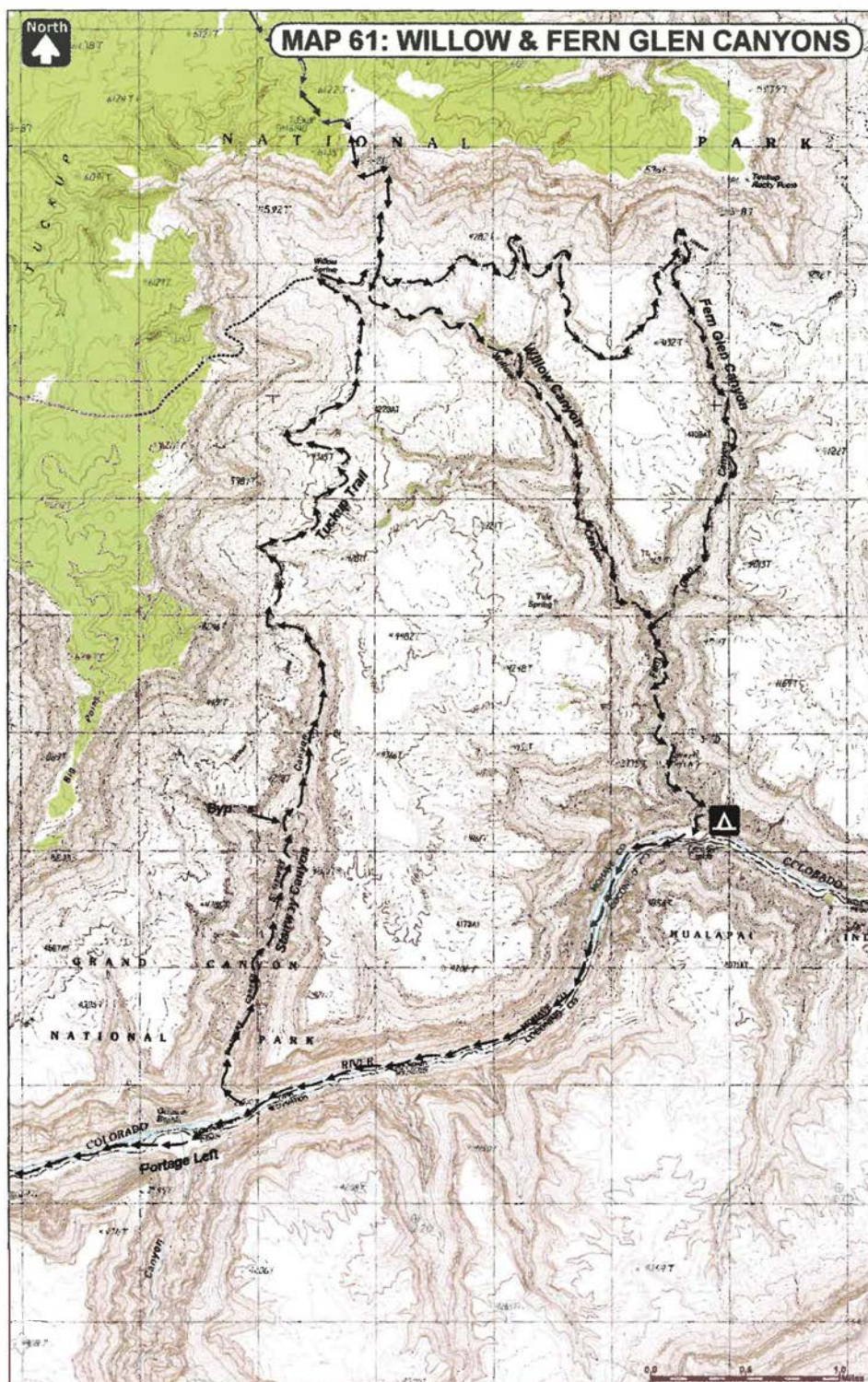
With some information garnered from Dave Mortenson, Rich Rudow and I were able to negotiate the complex entry route without much trouble to enter Fern Glen Canyon. Upon reaching the Redwall narrows, it became apparent that previous parties on which our information was based may have bypassed the long rappel. Fortunately, natural anchors (rocks) were plentiful and our rope long enough to make it through this section, all the while we were loudly serenaded by croaking frogs. We ended up spending the night in the canyon on a small Muav bench above the Willow confluence next to a pleasant pool after 11 hours of hiking. The next day we hiked to the river and boated to the route exiting at Lava Falls, also in 11 hours. At a later date we returned with Todd Seliga and Albert Putzig to descend Willow Canyon. On this trip we exited via Stairway and the cattle trail also in two 11-hour days. Most people would probably prefer 3 or more days to complete these trips.



*The final rappel in Willow and Fern Glen Canyons (Photo by Rich Rudow)*



# WESTERN GRAND CANYON





## 62: Cove Canyon

**OVERVIEW:** A remote backpacking/canyoneering/packrafting trip through a canyon filled with surprises. The trip may be done as a loop with a single car by entering on the Tuckup Trail and exiting via the Lava Falls Route. The loop can be completed on foot or through the use of a packraft to exit at Lava Falls.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LC9

**REQUIRED GEAR:** 2x200' ropes, 80' webbing, 13 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. A packraft, paddle and personal floatation device are required if exiting at Lava Falls. A wetsuit may be required after rains or during cooler weather.

**SPECIAL CONSIDERATIONS:** Water is available in Cove Canyon and the Colorado River. This canyon requires good natural anchor skills. All members of the group should possess good climbing skills. Camping gear must be kept dry through the pools in this canyon. River travel is required in order to complete this trip if exiting at Lava Falls. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 20.6 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 4,660 – 1,670 ft.

**Time Needed:** 2 – 4 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Gateway Rapids, Vulcans Throne 7.5

**Navigation:** Moderate

### DRIVING DIRECTIONS

**CANYON:** From the small town of Fredonia, drive west on State Road 389 for 8.3 miles to between mileposts 25 and 24. Turn left (south) onto Mt. Trumbull Road. Zero your odometer and drive 22.5 miles on this well graded dirt road to a signed fork at a cattle tank. Left goes to Hack Canyon while the road continues straight to Toroweap and Mt. Trumbull. Stay straight to the 27.1-mile point and continue straight at the sign towards Mt. Trumbull (26 miles). At the 39.5-mile point, the road to Colorado City comes in from behind and to the right and immediately afterwards you'll pass a sign indicating your entry into Grand Canyon Parashant National Monument. Continue to the 45.7-mile point, where the road splits with the right branch leading to Mt. Trumbull. Stay straight, following the sign towards Toroweap. At the 52.5-mile point you'll enter Grand Canyon National Park shortly after crossing a cattle guard. At the 56.5-mile point, a road branches right at a small sign labeled Lava Falls Route – High Clearance Recommended. Continue straight for another 1.1 miles and turn left at the sign for the Tuckup Trail (straight will bring you to the Toroweap overlook in 2.6 miles). Drive a short distance down this road and park at the Tuckup Trailhead. Note: Good campsites with composting toilets are available off of a spur road along the way to the Toroweap Overlook.

**OPTIONAL CAR SPOT (LAVA FALLS ROUTE):** A car spot is not necessary, but will save you 3.4 miles of road walking. To get to the Lava Falls Trailhead, follow the directions above to the turn off for Lava Falls on the right. Follow this rougher road 2.3 miles to its end at a parking area and trailhead.

## TRIP DESCRIPTION

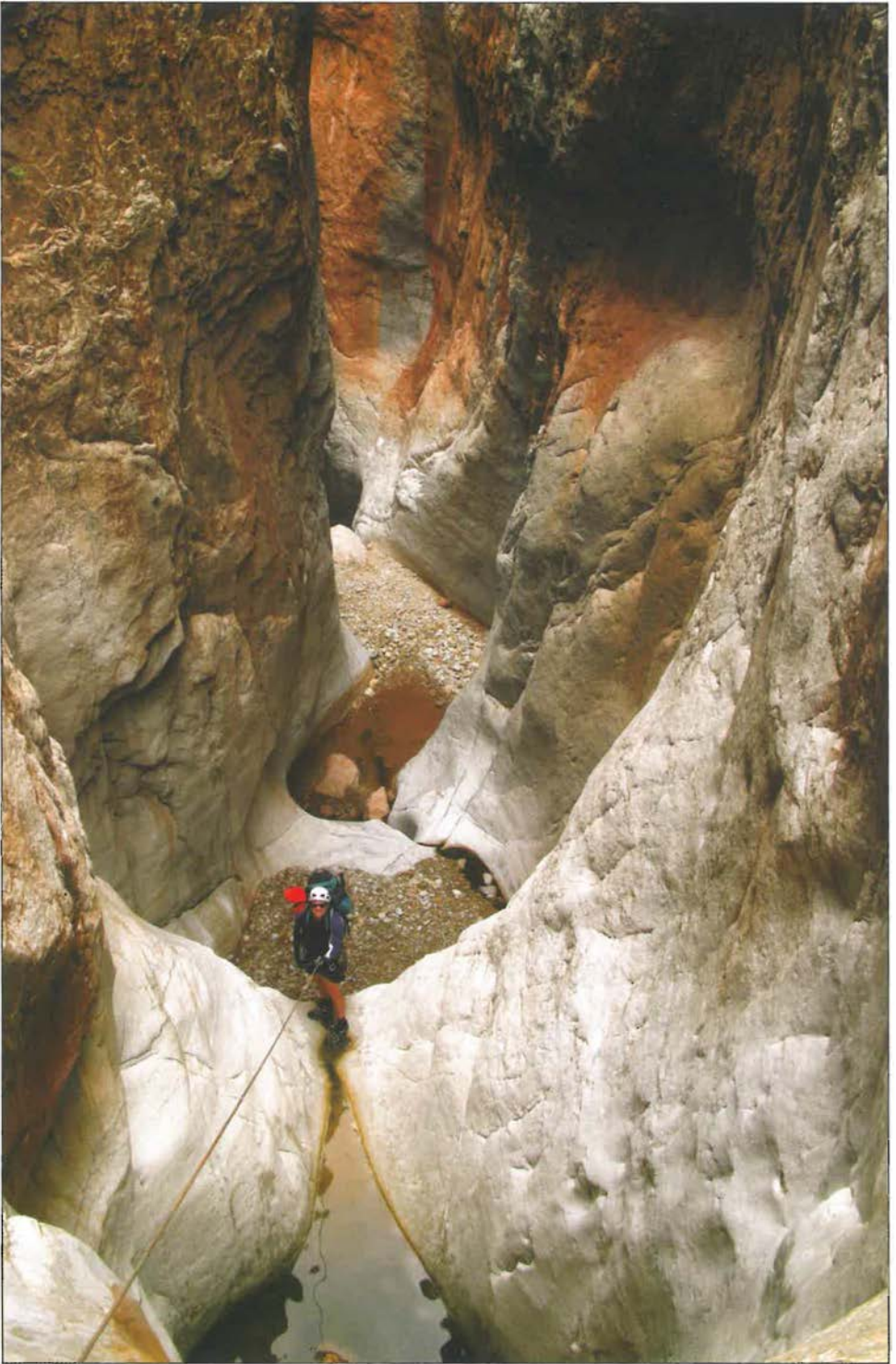
From the car park at the Tuckup Trailhead, walk east along the road that constitutes the first 3.5 miles of the trail. The road heads east along the Esplanade to end near the Cove Trail Route while the Tuckup Trail continues in the form of a not-terribly-distinct footpath. Follow the trail as it meanders its way in a maddeningly convoluted fashion in a northeasterly direction. Cairns are present at infrequent intervals, though they sometimes mark branching routes where others have gotten off track. You may lose and re-find the trail multiple times as you proceed. Keep in mind the trail roughly follows the same layer of the Esplanade for the majority of its length.

About 5 twisted miles after leaving the road, you'll arrive at the western arm of upper Cove Canyon near GPS point - UTM: 12S 318727 mE, 4016557 mN, WGS84 Datum. Depart the trail and work your way down into the shallow drainage. Just below where the two upper forks join, you'll arrive at back-to-back nuisance rappels. The first is 15 feet in length from a constructed rock pile at the top, the second is 25 feet (60 feet of rope required) from a small arch on canyon right a short distance back from the edge of the pour-over. Continuing downcanyon, you'll next encounter a series of 3 falls to get through the remaining layers of the Supai. The first two drops may be completed with a single 160-foot rappel using a rock wedged under a shelf on canyon left as an anchor. The third drop may be rappelled using a large boulder at the top on the right as an anchor and is 45 feet in height.

A short distance downcanyon, the Redwall Limestone appears, first as a shallow slot, however, a short walk brings you to a series of drop-offs into deeper narrows. The first group of falls may be completed as a single 180-foot rappel using a pinch point on the left located behind a group of tamarisks. The first stage of the rappel is about 70 feet in length; remain on rope and continue around the corner to complete two smaller drops. A short distance below, you'll be faced with two short drops that bend around a corner to the left. Both may be completed as a single 50-foot rappel using a constructed rock pile at the top.

After passing through a brief but pretty section of narrows, the canyon widens and becomes interspersed with large boulders. Some route-finding and climbing is required to negotiate a safe passage through these obstacles. Just before arriving at the confluence with Big Point Canyon, which enters from the left, you'll enter the Muav Limestone and soon thereafter be required to complete a 35-foot rappel from a knot-chock in a pinch point on canyon left. Below the confluence you'll reach another rappel of 50 feet from a solid tree on the left into a shallow pool. Just below you'll arrive at a surprising, but interesting drop of 75 feet down a sheer chute from a pinch point at the top into a gorgeous alcove.

Continue downcanyon through a deep Muav Canyon, which features some ledges and pools. Shortly before arriving at the junction with Burro Canyon, you'll come to a 50-foot rappel over a huge chockstone from a pinch point at the top. After passing through a stretch of pretty narrows, you'll arrive at the confluence with Burro Canyon, which enters via a series of stair-stepped ledges from the right. Just below the Burro junction, the canyon drops precipitously once more into another narrow slot. Downclimb as far as you are able, then rappel 110 feet from a rock-chock on the left down a trickling falls dotted with monkey flowers. This is followed immediately by a 45-foot rappel from another rock-chock, this one on the right.



*The Red wall narrows in Cove Canyon*



After passing through a pretty section of narrows, you'll turn a corner to find the canyon widens below with views of the cliffs located on the other side of the river. You're not done yet though. After some easy walking, the canyon drops once again. Bypass the first obstacle by following some ledges around and down on the right. The next, and final, drop must be rappelled. The pour-off requires 70 feet of rope and may be anchored from some rocks chocked under a low shelf on canyon right a bit back from the edge. Once down, remove your harness and complete the short walk to the mouth of Cove Canyon and the Colorado River.

**EXIT 1 – COVE CANYON ROUTE:** From the mouth of Cove Canyon, hike downriver along the northern bank for about ½ mile to locate the first feasible place where breakdown makes it possible to scramble past the cliffs that line the river. Though steep, with a few vertical sections and areas of loose rock, it is possible to ascend this break to the rim and the Tuckup Trail.

Climb up the steep slope to the north via the path of least resistance. It is possible to ascend straight up the slope by climbing the occasional limestone cliff band that presents itself, however, easier routes are usually available around these obstacles on one side of the slope or the other. A short distance above the river, you'll pass some tall mudstone hoodoos, which will be on the left. Continue higher on the slope to identify two scree chutes above. The rightmost chute ends in a dryfall, so we'll stay to the left to climb up around the fin of rock that separates the two channels. As you come around the backside of the fin, you'll see that the slope bends right (east) to pass behind it to eventually rise to the base of the Supai Sandstone. Continue up to the Supai keeping an eye on your footing in the uppermost portion of this section where the rock is loosest.

From the top of the slope, travel a little to the right to gain a rather more solid ridge and ascend it towards the Supai cliff above. Scan the area as you go to locate a fairly well established trail marked at frequent intervals with cairns. The trail circles the cliff to the right in a broad, counterclockwise arc with views down into Cove Canyon, which now lies far below to the east. Continue climbing up and around the cliff in a counterclockwise direction to eventually gain the rim at the top of the Supai. A short walk north and west will bring you to the Tuckup Trail, which follows an old jeep road. Turn left and follow the road 2.7 miles west back to the Tuckup Trailhead and your vehicle.

**EXIT 2 – LAVA FALLS ROUTE:** Another option is to exit via the Lava Falls Route, which lies about 5 miles downriver from the mouth of Cove Canyon. It is possible to walk this distance along the river bank, but the hike consists of an uninterrupted thicket of tamarisk and the walk would not be a pleasant one. So we'll inflate our packrafts and float the distance instead. The boat trip is largely uneventful; however, there are several sections of minor riffles along the way, which may be rafted or portaged depending on river conditions and your comfort level. About a mile after passing a black, lava pinnacle that sticks up from the middle of the river (called "Vulcan's Forge" or "Vulcan's Anvil"), you'll come around a corner to hear the roar of Lava Falls Rapids in the distance. Lava Falls is one of the more notorious rapids in the Canyon; fortunately, we'll be exiting the river on the right about ¼ mile above the rapid. Regrettably, there's no convenient take-out on which to beach your raft; instead, you'll have to pull over at any convenient set of low rocks near UTM: 12S 313129 mE, 4008073 mN, WGS84 Datum.

Once out of the river, deflate and store your raft and look for the series of cairns that mark the Lava Falls Route. The route is a steep 1.5-mile climb straight up and out

of the canyon following a series of braided trails. Portions of the lower part of trail are particularly unpleasant where it travels through gullies of loose scree. Choose a cairned route that travels over secure boulders where possible. The route eventually tops out at the Lava Falls Trailhead. If you did not spot a car here, then you'll need to follow the road 1.1 miles to where it joins the main road to Toroweap. Turn right and follow this road another 2.3 miles back to the Tuckup Trailhead.

*AUTHOR'S RATING* ★★★★★

Cove Canyon features narrows in every layer of rock and in some cases, multiple sets of narrows. Just when you think you've got the canyon figured out, another drop-off, more narrows and great scenery await. Rich Rudow and I completed this as a two day trip camping near the Burro confluence under a shelf as a blustery weather front blew showers of rocks into the canyon from above. Total hike time was 11 hours. On day 2, we completed the canyon and rafted to Lava Falls then followed this route to the rim and the roads back to our vehicle in 10 hours. At a later date, we hiked the Cove Canyon Route to the river and back in about 5 hours.

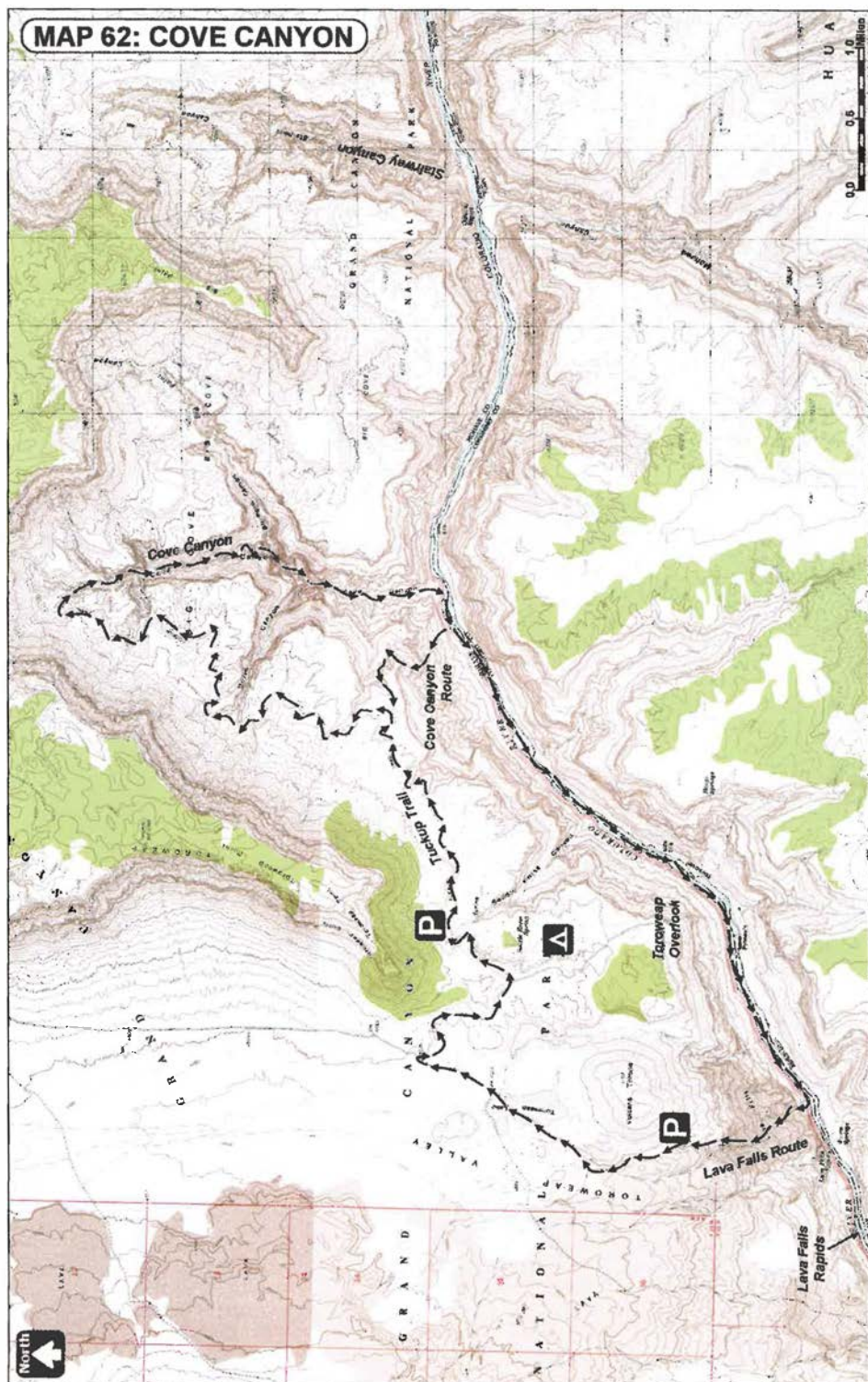


*One of many narrow layers in Cove Canyon (Photo by Rich Rudow)*



# WESTERN GRAND CANYON

MAP 62: COVE CANYON

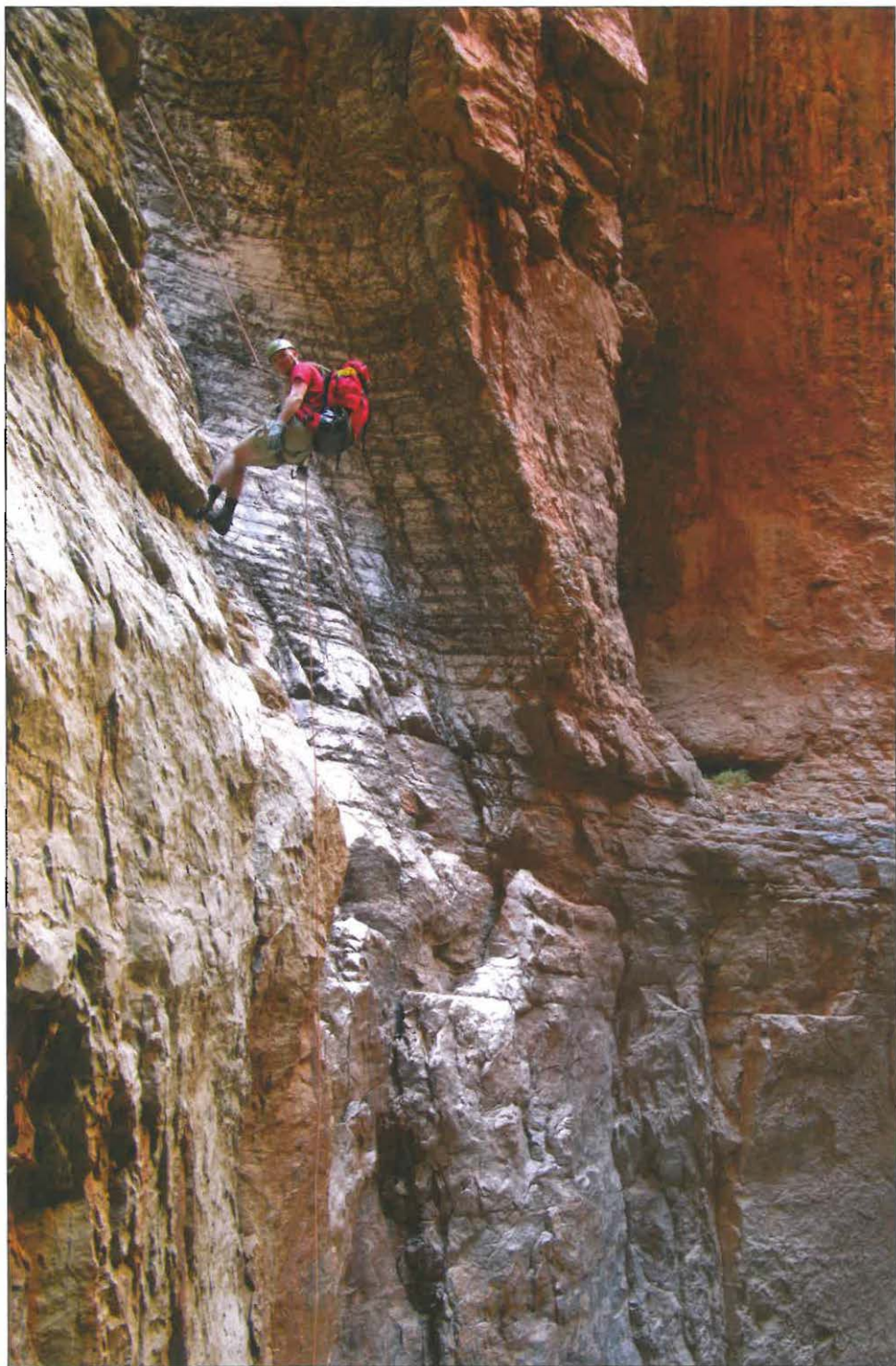






*Cove Canyon*





*The 130-foot rappel in Hidden Spring Canyon*

## 63: *Surprise Canyon Tributaries*

**OVERVIEW:** A very remote backpacking/canyoneering trip featuring a natural arch and some unique canyons carpeted with monkeyflowers.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LJ9

**REQUIRED GEAR:** 2x150' ropes, 50' webbing, 5–7 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. Long pants will help protect your legs from blackbrush branches encountered along the Esplanade portion of this route.

**SPECIAL CONSIDERATIONS:** Water is available in portions of each of the drainages described. These canyons require good natural anchor skills. All members of the group should possess good climbing skills. This is a very remote area with no chance to resupply. Carry extra gasoline, water, food and a good spare tire in your vehicle. This hike requires a permit from the National Park Service.



**ACA Rating:** 3B VI

**Distance:** 17.0 – 21.0 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 6,000 – 2,260 ft.

**Time Needed:** 3 – 5 days

**Best Time of Year:** Spring, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Amos Point 7.5

**Navigation:** Difficult

### *DRIVING DIRECTIONS*

From Cedar City, Utah, drive west on Interstate 15 to Exit 4 for Brigham Road. Zero your odometer and head south for 1.6 miles to turn right onto River Road, which soon becomes well graded dirt. Remain on this main track, ignoring any branches. At the 6.2-mile point, River Road becomes Forest Road 1069 and later passes a road to Seegmiller Mountain at mile point 19.4 (stay right). At the 43.2 mile mark, turn right towards Mount Dellenbaugh and Parashant/Oak Grove on Forest Road 103 to eventually enter the Grand Canyon-Parashant National Monument at the 58.0 mile mark. Remain on Forest Road 103 turning right at mile point 60.7 towards Mt. Dellenbaugh. At the 73.5-mile point, the road passes through a gate and fence eventually arriving at a fork at mile point 80.0. Left goes to Mt. Dellenbaugh and Horse Valley right goes to Twin Point (15 miles). Turn right towards Twin Point on Forest Road 1019. Stay to the left at the 81.6 and 82.4-mile points remaining on FR 1019 towards Twin Point. At the 84.4-mile point, you'll pass a sign indicating that you are entering National Park Service administered lands within Grand Canyon-Parashant National Monument. The road immediately deteriorates after passing this sign, becoming rather rocky. At mile point 84.9, stay straight remaining on 1019 to eventually pass a trail register, which is on the right side of the road at mile point 87.0. Finally, at mile mark 93.9, turn right onto a short spur road. Follow this road 100 feet to the barricade at the end and park.

### *TRIP DESCRIPTION*

**HIDDEN SPRING CANYON:** From the car park, continue down the barricaded road a short distance to the canyon rim. A cairn on the right indicates the beginning of an old cattle trail that travels southwards on a faint track down through the upper limestone

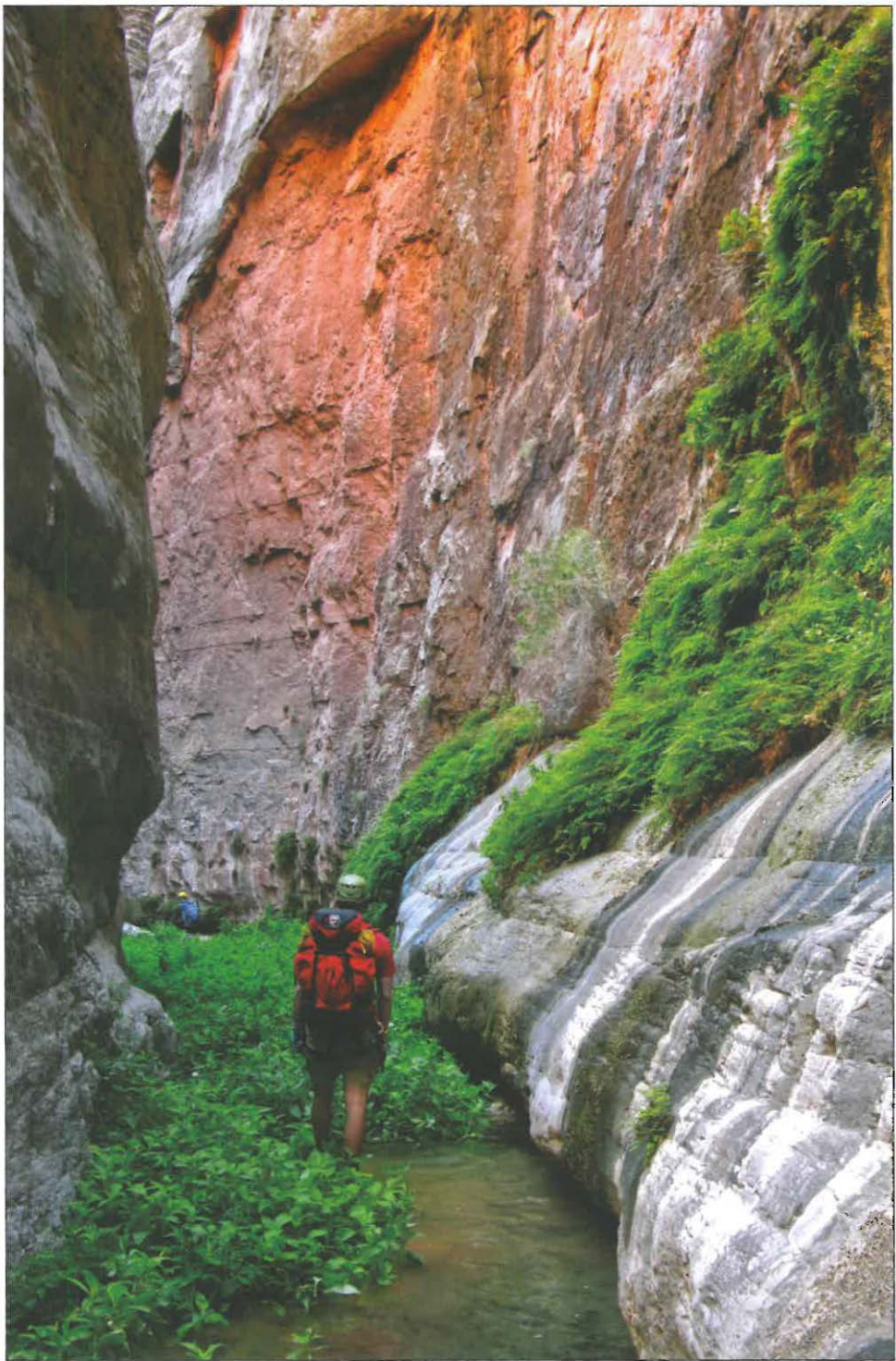


layers along the left side of a minor ravine. The path eventually winds up in the bottom of the dry wash, which may be followed to its end at the top of a sheer headwall in the Supai. The quickest way down is to follow the headwall to the right a short distance and use a pine tree as an anchor to perform a 140-foot vertical rappel to the top of a debris slope. Use extreme caution during this rappel to avoid dislodging any of the many crumbly, loose rocks that line the cliff face. Once down, retrieve the rope and scramble the remaining way down to the canyon floor. A second pour-off in the Supai is located a short distance downcanyon and requires a 120-foot rappel using a rock pile as an anchor.

Soon, you'll enter the Redwall Limestone and rappel #3, which is 50 feet in length down a chute from a diminutive (small enough that a backup is in order) tamarisk. Rappel #4 is just beyond and is 40 feet in length from a rock horn on the right. Rock-hop downcanyon through a scenic, but not terribly narrow Redwall gorge for quite a ways until you eventually arrive at a large drop into dark narrows just above a natural bridge, which spans the canyon. Use a small rock horn on the right to rappel 150 feet to the canyon bottom. A series of seeps may be found a short distance below the bridge creating a beautiful, green oasis with fern dotted walls and a wall-to-wall carpet of scarlet monkeyflowers. After a short walk requiring some shallow wading, the canyon widens and soon arrives at the junction with Surprise Canyon. Turn left and rock-hop up the Surprise drainage. Water soon appears underfoot.

**OPTIONAL TRIP—TWIN KEY CANYON:** Those looking for another interesting canyon in the area can continue up Surprise Canyon to the second drainage, which enters from the right at UTM: 12S 268074 mE, 3983789 mN, WGS84 Datum. Walk up this canyon for about 15 minutes to locate an alcove on the left (facing upcanyon). Look across the canyon to the right side to pick out a route up the steep slope to the top of the Redwall. Now that you've picked it out, you can stop gawping at it and go climb it (be sure to stay to the right as you near the top). Once on top of the Redwall, simply turn left and follow the rim of the canyon toward its head. You can either drop into the canyon via a small gully near the top, or go all the way up to where the streambed enters the Redwall. If you decide on the latter, you'll have to perform 4 tricky downclimbs between 10–15 feet in height (a belay may be required) and one short wade to arrive at the location of the gully entrance.

Once in the canyon, simply head downstream to soon arrive at a chockstone and drop-off. The obstacle can be downclimbed using a crack that travels from left to right. Below, you'll enter a deep, but short, section of narrows after which the canyon becomes rather wide. Eventually, the canyon enters a dark, striated layer of limestone and a 60-foot rappel into narrows using a rock wedged in a crack at the top of the drop (alternatively an anchor may be created from a rock pile). Below is a small drop-off formed by a chockstone that can be downclimbed on the left into an area fed by seeps that form a small gurgling stream. Just before exiting the narrows you'll arrive at a 15-foot nuisance rappel over a chockstone using a pinch point on the left for an anchor. After a short stroll through a hallway, the canyon opens into an area blanketed with scarlet monkeyflowers. Continue downcanyon through the brush and boulders. After completing several downclimbs (one of which may require a belay), you'll arrive at the confluence with Surprise Canyon once again. Turn right and hike up Surprise.



*A carpet of monkey flower in Hidden Spring Canyon*



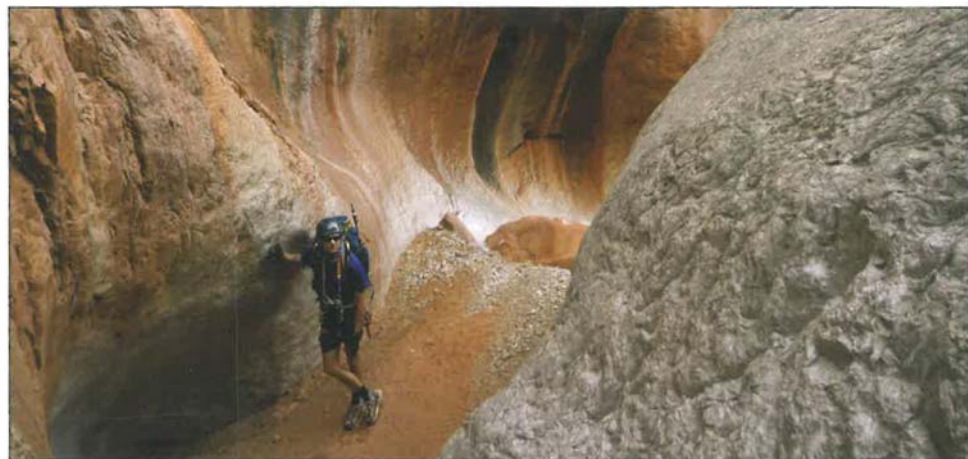
**EXIT – TWIN SPRING CANYON:** Continue up Surprise Canyon to eventually come to a fork with Twin Spring Canyon entering from the left, and Green Springs Canyon (the source of the greater part of the flow found in Surprise), entering from the right. Turn left and walk up Twin Spring Canyon. Those looking for a good campsite will find some flat ledges a short distance up canyon on the left. Shortly thereafter, you'll pass through some nice Redwall narrows featuring a large suspended boulder and a spring. Above the spring, the water disappears underground.

The hike up canyon is a straightforward slog and as you get into the Supai you'll want to start looking for a way up and out of the drainage on the left (west). I was able to climb out at UTM: 12S 268992 mE, 3987694 mN, WGS84 Datum where the Supai has broken down into a series of ledges and slopes. The route up at this point is steep and requires the use of hands in a few places, but does not require any sporty climbing moves and is not exposed. Once on top of the Supai, it's simply (note I did not say "easily") a matter of hiking cross-country along the Sanup Plateau, dodging the blackbrush and the many finger-like drainages that feed into Surprise back to the drainage and cattle trail on which you initially entered.

First, you'll need to travel due west towards the cliffs to eventually round the head of a particularly large tributary of Surprise Canyon. Once around this obstacle, bend towards the south and slightly west to wind in and out of a number of nuisance gullies to eventually arrive at the drainage you had used earlier as an entry route off of Twin Point. Turn right (northwest) and proceed up this drainage to eventually pick up the cattle trail, which leads back to the rim and your vehicle.

## **AUTHOR'S RATING ★★★**

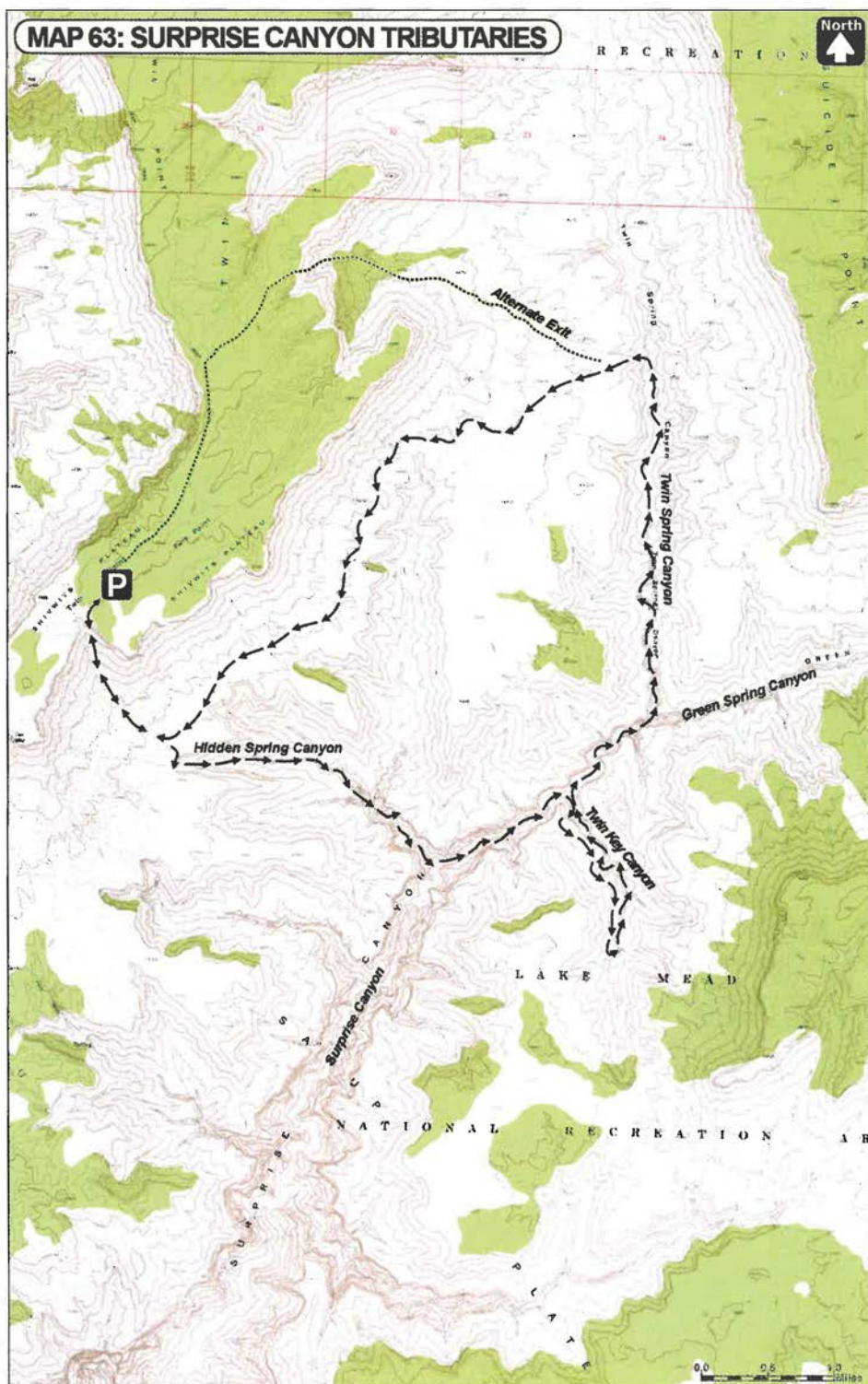
I completed this trip in three days spending a total of 7.5, 8 and 11 hours hiking (your time may vary). Exiting Twin Spring Canyon, we got the none-too-brilliant idea to blaze a shortcut to the rim via a steep ravine located at UTM: 12S 263787 mE, 3991864 mN, WGS84 Datum. Though it is possible to get out of the canyon at this location, I found the route to be steep, loose, brushy and thoroughly unpleasant. I have not done the section of Esplanade I've provided in the description, but I am convinced it is the better route (it would certainly be hard pressed to be worse).

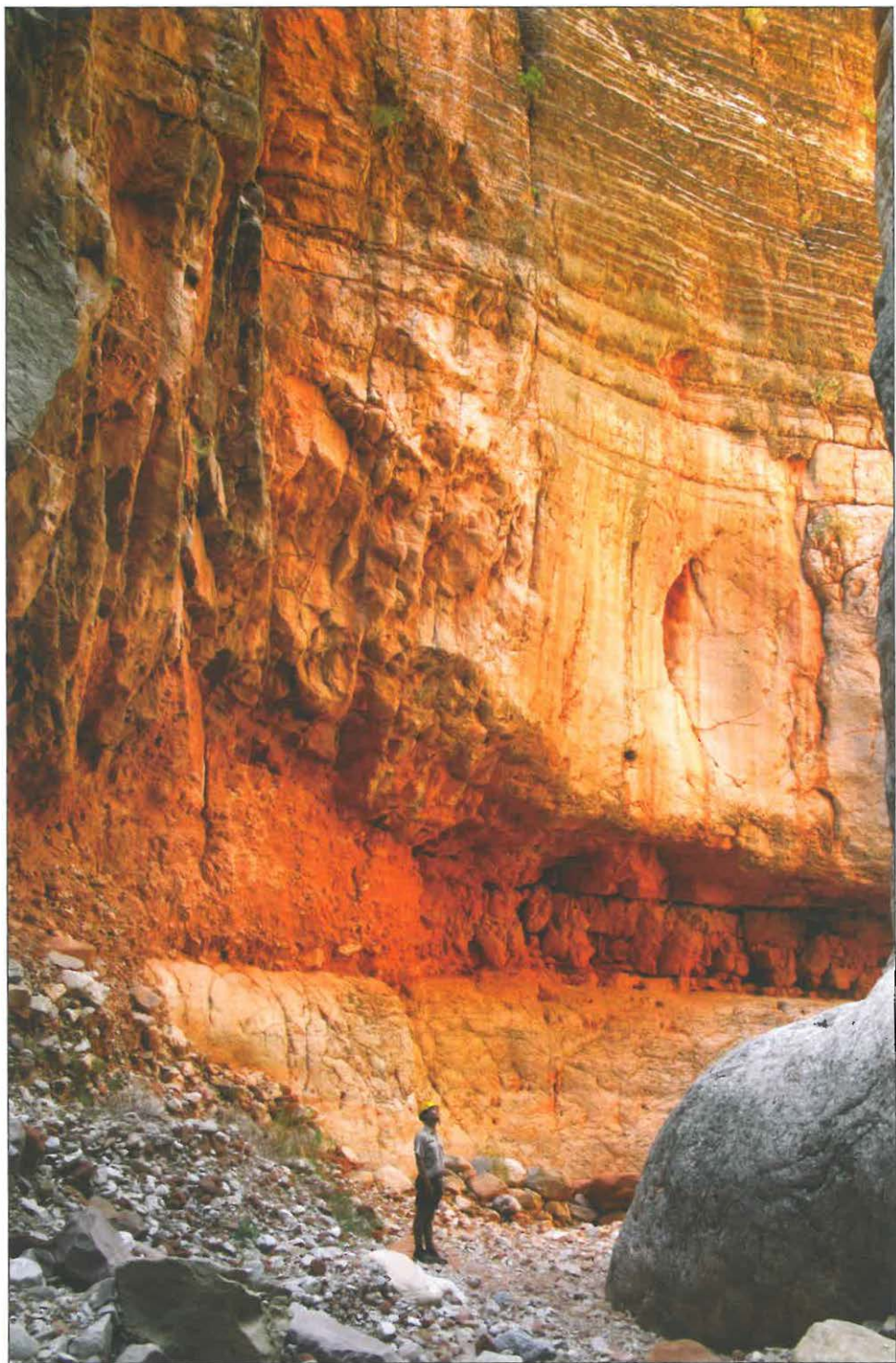


*The start of the Redwall in Hidden Spring Canyon (Photo by Rich Rudow)*



**MAP 63: SURPRISE CANYON TRIBUTARIES**





*Todd Seliga in a tributary of the Eastern Arm of Burnt Canyon*



# 64: *Burnt and Tincanebitts Canyons*

**OVERVIEW:** A remote and rugged off-trail backpacking/canyoneering trip in the Western Grand Canyon featuring some big rappels and nice narrows. This is a good hike for risk tolerant adventurers seeking a true wilderness experience.

**LOCATION:** Grand Canyon National Park. North Rim. Use area: LK9

**REQUIRED GEAR:** 2x250' ropes, 90' webbing, 12 rap rings, harness, descender, helmet, carabiners, drybag, and shoes with good traction. A wetsuit is required for Tincanebitts in all but the hottest weather.

**SPECIAL CONSIDERATIONS:** Water is available at Burnt Canyon Spring, in the narrows of Tincanebitts Canyon and at the Colorado River. All members of the group should possess very good climbing skills. Tincanebitts requires good natural anchor skills and features an exit route that is steep and treacherous. Camping gear must be kept dry through the pools in Tincanebitts. These hikes require a permit from the National Park Service.



**ACA Rating:** See Trip Description

**Distance:** 16.5 – 30.0 miles

**Physical Difficulty:** Extremely Strenuous

**Elevation:** 6,400 – 2,000 ft.

**Time Needed:** 2 – 5 days

**Best Time of Year:** Spring, Summer, Fall

**Vehicle:** High Clearance

**Car Shuttle:** No

**Maps:** USGS Tincanebitts Point 7.5

**Navigation:** Moderate

## DRIVING DIRECTIONS

From Cedar City, Utah drive west on Interstate 15 to Exit 4 for Brigham Road. Zero your odometer and head south for 1.6 miles to turn right onto River Road, which soon becomes well graded dirt. Remain on this main track, ignoring any branches. At the 6.2-mile point, River Road becomes Forest Road 1069 and later passes a road to Seegmiller Mountain at mile point 19.4 (stay right). At the 43.2 mile mark, turn right towards Mount Dellenbaugh and Parashant/Oak Grove on Forest Road 103 to eventually enter the Grand Canyon-Parashant National Monument at the 58.0 mile mark. Remain on Forest Road 103 at mile point 60.7 towards Mt. Dellenbaugh. At the 73.5-mile point, the road passes through a gate and fence eventually arriving at a fork at mile point 80.0. Left goes to Mt. Dellenbaugh and Horse Valley right goes to Twin Point (15 miles). Turn right towards Twin Point on Forest Road 1019. Stay to the left at the 81.6 and 82.4-mile points remaining on FR 1019 towards Twin Point. At the 84.4-mile point you'll pass a sign indicating that you are entering National Park Service administered lands within Grand Canyon-Parashant National Monument. The road immediately deteriorates after passing this sign, becoming rather rocky. At mile point 84.9, stay straight remaining on 1019 to eventually pass a trail register, which is on the right side of the road at mile point 87.0. Drive 1.3 miles past the trail register and park at any convenient spot at mile point 88.3.

## TRIP DESCRIPTION

From the nondescript car park, hike due west dodging the juniper trees to arrive



at the rim of the canyon at GPS Point - UTM: 12S 262031 mE, 3995037 mN, WGS84 Datum. There is a small cairn on the rim that marks the entry point into the canyon. You will encounter multiple minor use trails during the steep descent, but all are precipitous and covered with loose scree that shifts and causes minor avalanches with every step. To avoid injury due to rockfall, it would be wise for each member of the group to separate horizontally from each along the slope. Continue down the hill to eventually arrive at the bottom and a rolling, blackbrush dotted plain. All of the canyons below are described from this starting point.

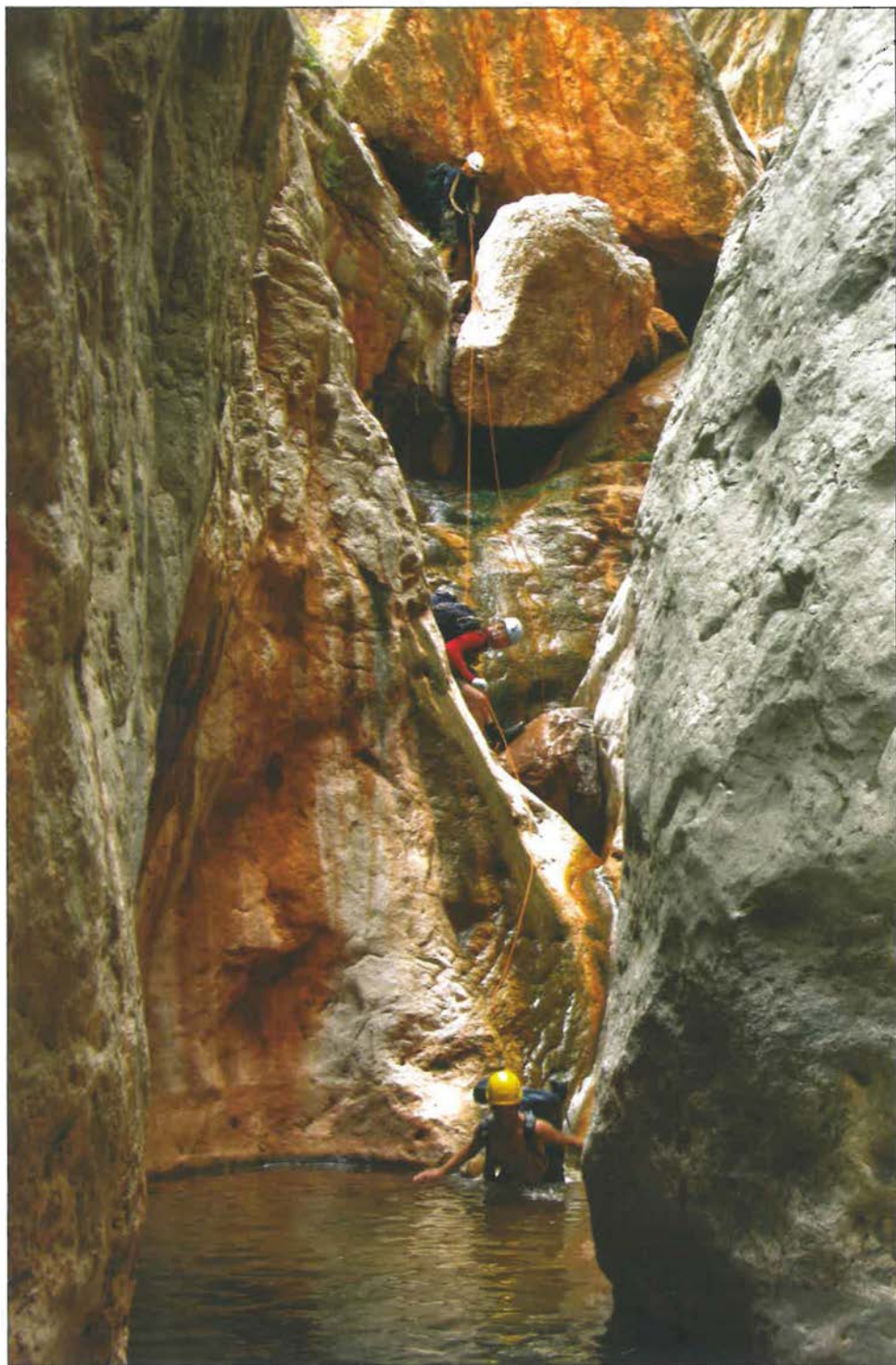
**BURNT CANYON - MAIN ARM (RATING: 1A VI):** Those looking to descend the main, non-technical branch of Burnt Canyon should continue hiking to the west to reach one of the two minor upper arms of the canyon. There are springs in each arm, however, Burnt Canyon Spring in the eastern fork is the more reliable of the two. Minor route-finding is required in order to locate a break allowing entry into one or the other of the forks, but once down the walking is relatively flat and easy all the way to the Colorado River.

**BURNT CANYON - EASTERN ARM (RATING: 3B VI):** Bend your trajectory to the left (south) to begin hiking the rim parallel to the main arm of Burnt Canyon. There are some minor hills and gullies to negotiate along the way, but nothing difficult. Eventually, the steep cliff located on the left will fall back and you'll want to begin hiking to the left (east) to eventually arrive at a sheer Supai Sandstone cliff at the head of the canyon at GPS Point - UTM: 12S 261469 mE, 3991031 mN, WGS84 Datum.

The Supai forms a rather continuous vertical barrier around all the drainages in the area and the only way through is to rappel. Wrap a sling around the large boulder located just to the left of the headwall and make sure your sling extends just over the edge. You will need every bit of the 250-foot rope you are carrying to negotiate the headwall. It's best to hang your pack for the rappel since the bulk of it is free-hanging. After pulling the rope, continue downcanyon to soon arrive at a 45-foot rappel (also in the Supai), that can be anchored using a rock horn located a short distance down from the top of the drop on the left. This is followed by a 100-foot rappel using a tree on one side or the other (we used the one on the left).

A short hike below will bring you to the Redwall, which soon forms some shallow narrows. There is one nuisance rappel in this section, which is 12 feet in height from a pinch point on the left at the top of the chockstone creating the drop. After that it's safe to remove your harness as you descend through a nice, if short, section of narrows. Soon, you will arrive at a junction with the right fork of the eastern arm of Burnt Canyon. Hikers who choose to take a short detour up this canyon will be rewarded with a few pools and some very deep and scenic narrows, which terminate in a series of chockstones. I was able to climb the first, but was stopped just beyond by the second.

When ready, retrace your steps and continue the hike downcanyon, the remainder of which is straightforward and easy. A little over an hour of steady hiking will bring you to the junction with the main drainage of Burnt Canyon, which is dry, rocky and uninteresting. The Colorado River lies about 4.5 miles downcanyon to the left; however, we'll turn right for a 6.0-mile hike to the head of the canyon and Burnt Canyon Spring. Exit the canyon using the same route used for the entry.



*The wet narrows of Tincanebitts Canyon*

**TINCANEBITTS CANYON - EASTERN ARM (RATING: 3B R VI):** From the bottom of the slope, proceed west in and out of the two upper forks of Burnt Canyon, then continue west and slightly south towards the dark red promontory of Red Point. Since your destination lies just on the other side, the best approach is to simply climb up and over Red Point, crossing near GPS Point - UTM: 12S 258638 mE, 3994498 mN, WGS84 Datum. From the top of the ridge, you'll have a clear view to the southwest of the eastern arm of Tincanebitts. Simply walk down the other side of the ridge and pick your way down a series of minor washes to the headwall of this drainage at the top of the Supai Sandstone. Work your way around and down on the right to get through a small drop-off at the head of the canyon.

Negotiating the Supai headwall may be done by completing two rappels in quick succession. The first is 60 feet in length to a ledge using a rock wedged in a crack at the top of the drop. This is followed by a 175-foot rappel from a tree on the left of the ledge. Hike downcanyon a short distance and climb down a small chute to reach the final rappel in the Supai (rappel #3), which is 60 feet in length using a rock horn that protrudes from the wall on the left.

A stream soon forms in the canyon bottom creating thick vegetation, which is best avoided by hiking the bench on the left. Fortunately, the brush abates as you enter the slickrock Redwall narrows, which make for a good place to put on your wetsuit and waterproof your gear since you'll soon be faced with a few minor downclimbs and pools that require wading. When ready, hike downcanyon a short distance to arrive at rappel #4, which is 20 feet in length and can be anchored by looping the rope around the large chockstone that formed the drop. Below, the canyon progresses deeper into the limestone and you'll be confronted with several downclimbs and pools that require swimming. The next drop is 15 feet in length into a deep pool and you can either jump into the pool (after checking for hazards) or rappel off of one person in the group who jumps once everyone else is down. Continue downcanyon to the next chockstone and drop to climb around the uppermost rock on the right to sling a boulder just underneath to complete a 40-foot rappel, which terminates in another pool and swim. This is soon followed by a 50-foot rappel from a chockstone a short distance back from the drop into another pool.

A few more downclimbs and pools and the canyon widens and the pools abate as the water disappears underground. After a short hike and a few climbs, you'll arrive at the top of a 250-foot rappel that can be completed using a small rock wedged in a crack on the right. Note: you'll need every bit of your rope to reach the bottom of this drop, so it's a good idea to extend the webbing right up to the edge. Once down, climb down around a corner to the right to locate a pinch point for a 130-foot rappel to arrive at the junction with the main fork of Tincanebitts Canyon. A short distance below, you'll reach the final rappel, which is 25 feet in length. We completed this drop as a simul-rappel by looping the rope over a rock at the top.

Remove your harness and proceed downcanyon through some minor narrows then into the wider main canyon where the walking becomes level and easy. Hike for about 2.5 miles keeping your eyes open for a spot where the canyon makes an abrupt jog to the right and a major side drainage enters from the left at GPS Point - UTM: 12S 253996 mE, 3989365 mN, WGS84 Datum. Turn left and begin climbing up this steep drainage, which gains over 2,500 feet in the next 1.3 miles. The climbing is straightforward at first as you



ascend the boulder filled gully. Hands are required in several places and as the drainage bends left, a 25-foot vertical climb is required that has decent hand and foot holds. As the canyon bends left (north), the ascent becomes steeper and the rocks underfoot become less stable. Another vertical climb is required in the Supai on the left to get up and around a chockstone that blocks the way forward. As you get higher in the Supai, the entire slope becomes loose and the danger of rockfall becomes severe. It might be safest to send one member of the party at a time through this section, which ranks among the most treacherous and potentially dangerous routes I've seen in the Canyon. The footing becomes a bit more firm as you near the top and soon thereafter the climb ends abruptly as you pop out onto a flat, chaparral dotted plain of the Sanup Plateau.

With that bit of unpleasantness out of the way, get your bearings by scanning the area to the northeast to identify the dark red bluff of Red Point. Hike across the plain angling just to the right of this landmark using a series of human and deer trails. While the walking is flat and easy, you'll want to put some effort into trying to avoid stepping on the cryptobiotic soil, which is prominent in the area. Once you get past the promontory, simply choose a middle path between Red Point and Burnt Canyon to eventually arrive at the upper arms of the latter near the springs. When ready, retrace your steps to the east up and out of the canyon along the steep scree slope used for the entry (which now doesn't seem nearly half as bad after experiencing the Tincanebitts exit).

## AUTHOR'S RATING

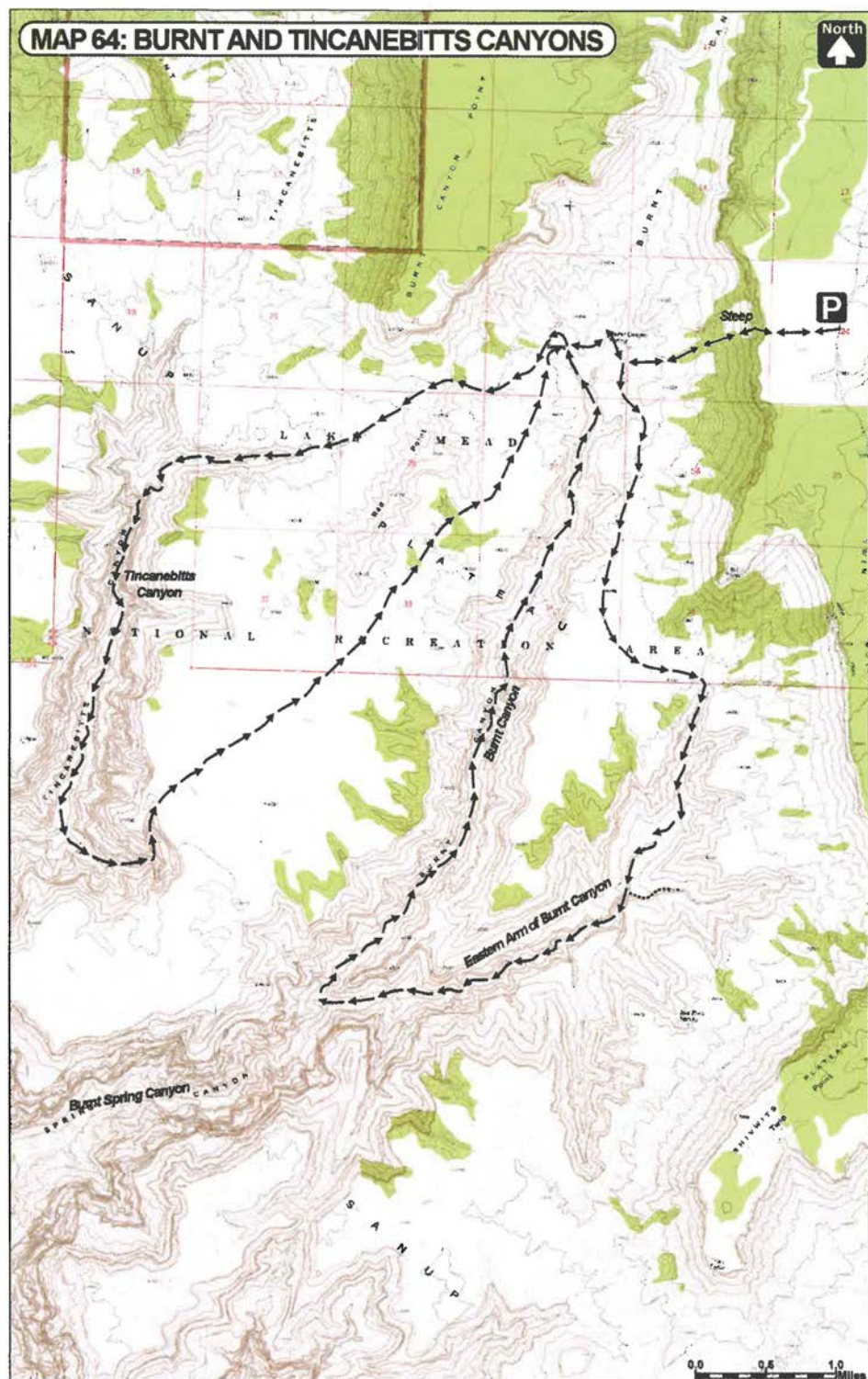
**Burnt Canyon:** ★★★     **Tincanebitts Canyon:** ★★★★★

Rich Rudow, Todd Seliga, Pascal van Duin and I completed this as a 3-day backpacking trip consisting of two very long days and one very short day (not really recommended). The first day we descended the eastern arm of Burnt Canyon and hiked back up the main arm to camp near the spring in about 11 hours. The second day we left our camping gear behind (and unfortunately our wetsuits as well) and hiked over Red Point to descend the eastern arm of Tincanebitts. The canyon was flowing steadily and all the pools were full of ice-cold water resulting in hypothermia throughout the group ranging from mild to severe. We exited the canyon around sunset, and hiked back to Burnt Spring arriving well after dark after a 14-hour day. The last day was a comparatively easy climb back up to the rim.



*Tincanebitts Canyon*

**MAP 64: BURNT AND TINCANEBITTS CANYONS**



## Appendix A: Grand Canyon and Canyoneering Resources

### ***Canyoneering Organizations***

American Canyoneering Association  
 PO Box 1208  
 Cedar City, Utah 84721-1208  
 Telephone: 435-590-8889  
<http://www.canyoneering.net>

### ***Environmental Organizations focusing on Grand Canyon Issues***

Sierra Club – Arizona Grand Canyon Chapter  
<http://arizona.sierraclub.org>

The Grand Canyon Trust  
<http://www.grandcanyontrust.org>

The Center for Biological Diversity  
<http://www.biologicaldiversity.org>

River Runners for Wilderness  
<http://www.rrfw.org>

### ***Grand Canyon Organizations***

Grand Canyon Hikers and Backpackers Association  
<http://www.gchba.org>

National Park Service – Grand Canyon  
<http://www.nps.gov/grca>

Grand Canyon Association  
<http://www.grandcanyon.org>

### ***Web Sites - Canyoneering Guides***

The following web sites contain canyoneering information and route descriptions in the American Southwest

Todd's Desert Hiking Guide (Arizona, Utah)  
<http://www.todds hikingguide.com>

Canyoneering USA (Utah)  
<http://www.canyoneeringusa.com>

Climb Utah (Utah)  
<http://www.climb-utah.com>



## **Web Sites – Grand Canyon Guides**

The following web sites contain canyoneering information and route descriptions for hikes in the Grand Canyon

Todd's Desert Hiking Guide

<http://www.toddshikingguide.com>

Grand Canyon Explorer

<http://www.kaibab.org>

Harvey Butchart Hiking Logs

[http://archive.library.nau.edu/cdm4/item\\_viewer.php?CISOROOT=/cpa&CISOPTR=66650](http://archive.library.nau.edu/cdm4/item_viewer.php?CISOROOT=/cpa&CISOPTR=66650)

Grand Canyon Off the Trail

<http://www.gloaming.com/rockgarden>

Grand Canyon Treks

<http://www.grandcanyontreks.org>

Hit the Trail - Grand Canyon and the Southwest

<http://www.hitthetrail.com>

## **Books - Technical Information**

*Mountaineering: The Freedom of the Hills* - The Mountaineers

*On Rope: North American Vertical Rope Techniques* - Bruce Smith, Allen Padgett,  
National Speleological Society Vertical Section

## **Books – Grand Canyon Guides**

*Canyon Hiking Guide to the Colorado Plateau* – Michael Kelsey

*Canyoneering Arizona* – Tyler Williams

*Day Hikes from the River* – Tom Martin

*Hiking and Exploring the Paria River* – Michael Kelsey

*Hiking Grand Canyon Loops* – George Steck

*Hiking the Grand Canyon* – John Annerino

*Hiking in the Grand Canyon Backcountry* – J.D. Green and Jim Ohlman

*Grand Canyon Hiking Adventures: South Rim Edition* – Wayne Tomasi

*Grand Canyon River Hikes* – Tyler Williams

*Grand Canyon Treks* – Harvey Butchart

## **Web Sites - Technical Information**

Life On A Line

<http://www.draftlight.net/lifeonline>

Animated Knots by Grog

<http://www.animatedknots.com>

Canyon Wiki

<http://canyonwiki.com>

***E-mail and On-Line Groups***

Grand Canyon Hikers Group

[http://groups.yahoo.com/group/Grand\\_Canyon\\_Hikers](http://groups.yahoo.com/group/Grand_Canyon_Hikers)

Bogley Outdoor Community

<http://www.bogley.com>

***Canyoneering Gear On-Line Stores***

Canyoneering USA

<http://canyoneeringusa.com/shop>



*Sacred Datura*

## Appendix B: ACA Canyon Rating System

The American Canyoneering Association (ACA) has developed a Canyon Rating System to provide an indication as to the difficulties a canyoneer can expect in a canyon (much like the Yosemite Decimal System used by climbers). The ratings assume a small, fit, well prepared group with proper equipment under normal conditions. Be aware that the ratings are somewhat subjective and will vary with the weather, time of year and conditions present at the time of the descent.

The rating system consists of four parts: Terrain / Technical Rope Work, Water Volume/Current, Risk / Seriousness and Time / Commitment.



*Red Point in western Grand Canyon at sunset*



Terrain / Technical Rope Work	
Indicates the type of terrain involved and the type of rope work required.	
1	<b>Canyon Hiking</b> Non-technical. No rope is required. May involve some easy scrambling requiring the occasional use of hands for balance and support. See route description for more information.
2	<b>Basic Canyoneering</b> Involves scrambling, or easy climbing. A rope is recommended for hand lines, belays, lowering packs and possible emergency use. Exit or retreat is possible without ascending fixed ropes.
3	<b>Intermediate Canyoneering</b> Requires rappelling or technical climbing. The canyon has obvious natural or fixed anchors. Retreat up canyon will require ascending fixed ropes.
4	<b>Advanced Canyoneering</b> The route involves exposed climbing, multi-pitch rappels, complex rope work (such as re-belays or guided rappels) and/or pothole escapes.
Water Volume / Current	
Indicates the water conditions that may be present in the canyon. Keep in mind that the water level in any canyon can fluctuate greatly depending on the season or weather. Flowing water increases the risk and difficulty of a canyon descent. If water levels are significantly higher than those described in the route description, consider returning at a later date.	
A	Normally dry or very little water. May involve wading to waist deep.
B	Normally has water with no current or light current. Still pools. Falls normally dry or have only a small flow. Expect to do some deep wading and/or swimming.
C	Normally has water with strong current. Waterfalls. Expect to do some deep wading and/or swimming in current.
Risk / Seriousness (Optional)	
The presence of an R or an X in a rating indicates that the canyon will involve higher than average risk. It should be noted that the absence of a risk rating is not intended to suggest that no risk is involved in the descent. All canyoneering involves risk. See the route description for additional details.	
R	<b>Risky</b> One or more extraordinary risk factors exist that could complicate the descent. Solid technical skills and sound judgment is required. Not recommended for beginners.
X	<b>Extreme</b> Multiple risk factors exist that will complicate the descent. Errors in technique or judgment will likely result in serious injury or death. Descent should only be attempted by expert canyoneers.
Time / Commitment	
Time estimates are based on small groups (fewer than 6) of fit and experienced canyoneers. Larger groups and less experienced groups will take longer, perhaps much longer.	
Half Day	
I	Short. Normally requires only a couple of hours.
II	Normally requires a half day.
Full Day	
III	Normally requires most of a day.
IV	Expected to take one long, full day. Get an early start. Bring a head lamp. Plan for possible bivy.
Multi Day	
V	Expected to take an average one and a half days.
VI	Expected to take two or more days.

## Index

### Numeric

- 2.8-Mile Wash (Upper Marble Canyon Tributary) 141-143
- 3.7-Mile Wash (Upper Marble Canyon Tributary) 141-143
- 4.4-Mile Wash (Upper Marble Canyon Tributary) 141-143
- 5-Mile Wash (Upper Marble Canyon Tributary) 144-147
- 5.5-Mile Wash (Upper Marble Canyon Tributary) 144-147
- 12.2-Mile Wash 160-163
- 35-Mile Canyon 191-195
- 36-Mile Canyon 191-195
- 36.7-Mile Canyon 196-201
- 150-Mile Canyon 419-421, 423, 426, 429-435, 441

### A

- about this book 21-24
- American Canyoneering Association (ACA) 21, 489, 492-493; rating system 115, 492-493
- anchors 18-19, 21, 21-22, 24, 44, 95-103; artificial 101-102; constructed 96-97, 99; existing 95-96; natural 96-97; redundancy 97
- Arizona Strip 128, 391
- ascending gear 108

### B

- backcountry zones and use areas 77-80
- backpack 109
- backpacking gear 109-110, 117-120; lightweight 117-120
- Badger Canyon 148-151, 154; North Fork 148-149, 151; South Fork 149, 151
- Bedrock Canyon 187-190; Route 189-190
- Bekihatso Wash (see Salt Trail Canyon)

- Bert's Canyon 211
- Big Canyon (Little Colorado River Gorge Tributary) 224-229, 233, 236
- Big Spring Canyon 325-329
- Bill Hall Trail 354, 361, 363-364, 367, 369-370, 372, 375-376, 386
- Blacktail Canyon 340-343
- blisters 41, 112
- Blue Spring Route (Little Colorado River Gorge) 235, 239-240
- body belay 101
- bolt kit, emergency 109-110, 120
- Bonita Creek 354, 361, 363-366
- Boulder Creek 282-283, 285-288
- Bright Angel Trail 51, 73, 245, 275-276, 279-281, 289, 291, 293, 295-297, 299-301, 303, 306-308, 313, 317,
- Buck Farm Canyon 32, 129, 208-213
- Burnt Canyon 482-484, 487-488; Eastern Arm 484; Main Arm 484

### C

- camping 36, 74, 77-80, 83-84, 86, 111, 122-123, 127, 135-136, 158, 184, 211, 219, 221, 240-241, 247, 250, 276, 304, 308, 314, 318, 336-337, 347, 391, 437, 438-439; North Rim 247, 391; South Rim 247, 391
- canyon techniques 94-106
- carabiners 109, 120
- Carbon Canyon 248-252
- Cathedral Wash 140-143
- Central Grand Canyon (overview) 243-248; hikes 249-388; road access 244-245; supplies 246-247
- Clear Creek (Clear Creek Loop) 274-277; trail 274, 276-277
- climate overview 71-73
- cold 34; see also hypothermia
- conditioning 40

Cork Spring Canyon 441-445  
 Cottonwood Creek 262-265, 267-268, 271  
 Cove Canyon 469-475  
 Cove Canyon Route (Cove Canyon) 472, 474  
 Crack Baby Canyon (Kanab Creek - Western Tributary) 410-412, 417  
 Cranberry Canyon 381-382, 385, 387-388  
 Cranberry Route 369, 381, 385-386, 388  
 Crazy Jug Canyon 345-350  
 creatures 35-37  
 Cremation Creek 283-288

## D

Dangers 31-52  
 Deer Creek Canyon 367-379; eastern fork 367, 370, 372; lower 374-379; middle fork 367-371, 373; upper 367-373; western fork 369-370, 373  
 Deer Creek Trail 354, 364, 370, 372, 376, 381, 385-386  
 dehydration 32-33  
 Dome Pocket Canyon (Tuckup Canyon Tributary) 444, 453, 456-457, 459  
 downclimbing 94  
 dry bag 94, 109  
 drysuit 34, 47, 116-117

## E

Eastern Grand Canyon (overview) 125-128; hikes 130-242; road access 127; supplies 127  
 emergencies 50-52  
 emergency phone numbers 52  
 Eminence Break 191, 197-201, 203-205, 209, 215-217  
 Esplanade Trail (Royal Arch Creek) 335-339  
 etiquette 121-124

## F

fall season 71-73  
 fauna (see creatures)  
 fees 76-77, 84, 86  
 Fern Glen Canyon 461-468

filtering 33  
 Fishtail Canyon 380-388; Eastern Fork 384-385; Western Fork 384-385  
 flash floods 41-43, 54, 71, 73, 123  
 Flipoff Canyon (Kanab Creek - Western Tributary) 394-395, 411-412  
 Flipoff Route 399, 411  
 flora (see plants)  
 food protection 110-111  
 footwear 111  
 friction (when rappelling) 104-105

## G

Garden Creek 291, 296, 298-301  
 gear 108-120; lightweight 117-120  
 geologic history 54-58  
 gila monsters 35-36  
 global positioning system 38-40  
 gloves 111  
 Grand Canyon (overview) 53-86  
 Grandview Trail 259, 261, 263, 265, 268, 271, 273  
 Grapevine Creek 267-273  
 groups 43-44, 121

## H

Hades Knoll Canyon (Tuckup Canyon Tributary) 453-456, 458-459  
 Hades Knoll Route 444-445  
 Hanaa Ninadzidzahl Wash (see Hot Na Na Wash)  
 Hance Creek 258-261  
 harness 113  
 Havasu Creek 436-440  
 Havasupai Tribe 64-65, 86, 437  
 headlamp 112  
 heat 34  
 helmet 48, 112  
 Hermit Creek 320-324  
 Hermit Trail 244, 303, 305, 307, 308, 314, 317-319, 321, 324,  
 Hermits Rest 244, 317, 318, 321-322  
 Hidden Spring Canyon (Suprise Canyon



Tributary) 476-479, 481  
 hiking injuries 40-41  
 Horn Creek 302-308, 313-314, 317  
 Hot Na Na Wash 168-171  
 House Rock Wash 173  
 Hualapai Hilltop 390, 437, 439  
 human history 63-70  
 hyponatremia 33  
 hypothermia 34, 43, 47, 73, 116

## I

---

icons 22-23  
 Indian Garden 51, 111, 245, 275, 289, 291,  
 295-296, 299-301, 303-304, 306-307,  
 313-314, 317  
 Indian Hollow 393-394, 396-399, 401  
 Indian Hollow Trail 367, 369, 372-373, 381, 385-  
 386, 388, 393-394, 396  
 injuries 40-41,

## J

---

Jackass Creek 152-155; middle fork 153; south  
 fork 153  
 Jumpup Canyon 392-393, 395-401, 406, 412  
 Jumpup-Nail Trail 393-394, 396

## K

---

Kanab Creek 65, 244, 390-391, 393-417; Eastern  
 Tributaries 401-408; Western Tributaries  
 409-417  
 Kanab Mini-Slots (Kanab Creek - Eastern  
 Tributary) 401, 406, 408  
 Kanab Minus One Canyon (Kanab Creek-  
 Eastern Tributary) 401, 406, 408  
 Kanab Minus Two Canyon (Kanab Creek-  
 Eastern Tributary) 401, 406, 408  
 Kanab One Canyon (Kanab Creek - Western  
 Tributary) 411, 414-415, 417  
 Kanab Point 394, 414-415; route 393, 400, 414-  
 415  
 Kanab Two Canyon (Kanab Creek - Western  
 Tributary) 400, 406, 411-412, 414-415,  
 417

Kanab Zero Canyon (Kanab Creek - Western  
 Tributary) 406, 411, 413, 415-417  
 keeper potholes 19, 114-115, 132, 145, 197, 199,  
 225, 228, 231-232, 367, 371-372, 382,  
 457  
 keeping your gear dry 94  
 Kirk's Chasm (Kanab Creek - Eastern Tributary)  
 401-402, 404, 408  
 knife 112  
 knots 94-95

## L

---

Lava Canyon 249-252  
 Lava Falls Route 461-462, 466, 469, 473-474  
 Lee's Ferry 66, 76, 88-89, 126-127, 131-133, 135,  
 139, 141, 144  
 life zones 17, 59  
 lightning 41  
 Little Colorado River Gorge 83, 234-242;  
 Tributaries 224-236  
 Lonetree Canyon 283-288

## M

---

Matkatamiba Canyon 419-420, 422-424, 426-  
 427  
 Monument Creek 303-305, 307-308, 313-315,  
 316-319  
 Monument Point 345, 353-354, 359, 361-363,  
 365, 367, 369-370, 372-373, 375, 381,  
 394  
 Muav Canyon 38, 330-333, 354

## N

---

Nankoweap Trail 219-221, 223  
 National Canyon 447-448, 450-451  
 natural history 59-62  
 Nautiloid Canyon 191-195  
 Navajo Nation 83-84, 127  
 navigation 38-40  
 New Hance Trail 253-255, 257  
 Ninetyone Mile Creek 308, 311  
 North Bass Trail 331-333, 354  
 North Canyon 177-181

North Kaibab Trail 51, 257-276, 279-281, 291, 293

North Spring Canyon 429-432, 435

## O

Olo Canyon 418-421, 427

## P

packrafting 88-93, 117, 120; dangers 45-49; gear 112-113; regulations 81-82

paddles 113-114

Panameta Canyon 419, 423-427

Papago Creek 253-257; Eastern Fork 255, 257; Western Fork 255, 257

Paria Canyon 134-139

permits 68, 74-86, 88, 127, 248, 391; Grand Canyon 74-80; Navajo Nation 83-84; Havasupai Tribe 86

personal floatation device (PFD) 89, 114,

Phantom Creek 80, 289-293

Phantom Ranch 51, 59, 268, 276, 283, 286-287, 291

photography 105-106

Pipe Creek 291, 294-297, 300; Eastern Fork 295-296; Western Fork 296

plants 37-38, 59, 61, 81, 84, 122

Pocket Point Canyon 446-451

Point Huitzil Route 335-339

poison ivy 37-38, 188, 332

pothole escape gear 114-115

pull cord 115

## R

rappelling 16-17, 50, 103-105, 111; device 115; ring 115; dangers 44-45

Rattlesnake Canyon (Kanab Creek- Eastern Tributary) 401-404, 406, 408

rattlesnakes 35

reference table of canyons 26-30

Ribbon Falls 275, 278-281; upper 280-281

Rider Canyon 165, 167, 169, 171, 172-176, 178; upper 173-174, 176; lower 174, 176

road access 127, 244-245, 390

rockfall 21, 103-104, 199, 268, 360, 484, 487

Rocky Point Canyon (Tuckup Canyon Tributary) 444-445, 453, 456-459

rope 17, 18, 21, 30, 44-45, 48, 50, 94-96, 101-104, 108, 115-116; placement 102

rope bag 116

rules and regulations 48, 74, 77, 81-82, 84, 114, 247, 342

Royal Arch Creek 334-339

## S

Saddle Canyon (River Mile 47) 218-223

Saddle Canyon (Central Grand Canyon) 344-345, 347-348, 350

Salt Creek 303, 305, 308, 312-315, 317-318

Salt Trail 83, 225-226, 229, 231-233, 236, 238, 240; Canyon (Little Colorado River Gorge Tributary) 225-226, 228, 231-233, 238, 240

Salt Water Wash 161-163

S B Point 430, 441-442

Scorpions 36

Scotty's Hollow (Kanab Creek Tributary) 393, 398, 400, 406, 409, 411, 413-414, 417; north fork 413; south fork 413

Scotty's Hollow Route 394, 399-400, 417

Sevenmile Draw (Upper Marble Canyon Tributary) 144-147

Shinumo Wash (see Twentynine Mile Canyon)

Silence 121-122

simul-rappel 101, 486

Soap Creek 156-159; north fork 157-159; south fork 158-159

socks, neoprene 34, 47, 112

South Canyon 126, 184, 187-190; trailhead 187

South Kaibab Trail 275-277, 279-281, 283-285, 287, 289, 295,

Sowats Point 393, 396, 408, 413

spring season 71-73

Stairway Canyon 461, 464-465

Stina Canyon 345-348, 350

Stone Creek 341-342, 352-357

stress injuries 40-41

summer season 71-73  
 sun 34  
 sunburn 34  
 supplies 127, 246-247, 390-391  
 Surprise Canyon 478-481; Tributaries 476-481  
 Swamp Point 331, 353-357  
 swift water 43, 102, 375

## T

Tanner Trail 238, 241-242, 249-252  
 Tanner Wash 164-169  
 Tapeats Cave Canyon 353, 355, 358-362  
 Tatahatso Wash 193-195, 202-207  
 Tatahoysa Wash 199, 204, 211, 214-217  
 Temperatures, average 72  
 tether 116  
 Thunder River Trail 354-355, 361-364, 366, 369-370, 372-373, 375-376, 379, 386-388  
 Tincanbitts Canyon 483-488; Eastern Arm 486  
 Tonto Trail 51, 259, 264, 268-269, 271-273, 283-285, 288-289, 295-297, 299, 303-304, 306, 313-315, 317-319, 321, 323-324, 335, 337-339  
 traction device 73, 116  
 Trinity Creek 305, 307-311  
 Tuckup Canyon 441, 444-445, 447, 450-451, 452-459; tributaries 453-459  
 Twentynine Mile Canyon 182-185  
 Twin Key Canyon (Surprise Canyon Tributary) 477-481

Twin Spring Canyon (Surprise Canyon Tributary) 477, 480-481  
 twists and strains 40

## U

ultraviolet (UV) light 33  
 Upper Marble Canyon Tributaries 140-147

## V

Vishnu Creek 266-269

## W

Waldron Trail 318, 321-322  
 Waterhole Canyon (Little Colorado River Gorge Tributary) 225-227, 230, 235, 239  
 Water Holes Canyon 130-133  
 weather 22, 24, 34, 38, 41-43, 64, 71-73, 116; see also temperatures  
 webbing 18-19, 44, 50, 95-97, 102, 112, 115-116, 123  
 Western Grand Canyon (overview) 390-391; hikes; road access 390; supplies 390-391  
 wetsuit 19, 34, 47-48, 73, 112, 116-117,  
 Whispering Falls Canyon (Kanab Creek - Eastern Tributary) 401-402, 404-408; sneak route 405-406  
 White Creek 330-333 (see also Muav Canyon)  
 Willow Canyon 460-468  
 winter season 71-73





### About the Author

As an avid hiker all of his adult life Todd Martin has thru-hiked the Appalachian Trail in the eastern US and sections of the Pacific Crest Trail in the west. He currently resides in the desert southwest with his wife and cats and spends most weekends and all vacations hiking and exploring. His commercial-free web site, Todd's Desert Hiking Guide (<http://www.ToddsHikingGuide.com>), contains detailed information, descriptions and photographs of many hikes and canyons in Arizona and Utah. Todd is certified as a Canyon Leader through the American Canyoneering Association and is the author of *Arizona Technical Canyoneering* a guide to the technical slot canyons of the Grand Canyon State.



*Todd Martin ascending 150-Mile Canyon  
(Photo by Rich Rudow)*



*Mooney Falls in Havasu Creek*

## Table of Contents

Acknowledgements .....	10
Foreword .....	12
<b>1 Introduction</b>	<b>15</b>
About this Book .....	21
<i>Overview Map</i> .....	25
<i>Reference: Table of Canyons</i> .....	26
<b>2 Dangers</b>	<b>31</b>
<b>3 Grand Canyon Overview</b>	<b>53</b>
Geologic History .....	54
Natural History .....	59
Human History .....	63
Climate Overview .....	71
Permits, Fees and Regulations .....	74
Navajo Nation .....	83
Havasupai Tribe .....	86
<b>4 Techniques</b>	<b>87</b>
Packrafting .....	88
Canyon Techniques .....	94
<b>5 Gear and Etiquette</b>	<b>107</b>
Gear .....	108
Etiquette .....	121
<b>6 Eastern Grand Canyon</b>	<b>125</b>
1: Water Holes Canyon .....	131
2: Paria Canyon .....	135
3: Upper Marble Canyon Tributaries - 1 .....	141
4: Upper Marble Canyon Tributaries - 2 .....	144
5: Badger Canyon .....	148
6: Jackass Creek .....	153
7: Soap Creek .....	157
8: Salt Water Wash and 12.2-Mile Wash .....	161
9: Tanner Wash .....	166
10: Hot Na Na (aka: Hanaa Ninadzidzahl) Wash .....	169
11: Rider Canyon (aka: House Rock Wash) .....	173
12: North Canyon .....	177
13: 29-Mile Canyon (aka: Shinumo Wash) .....	183



14: South and Bedrock Canyons.....	187
15: Nautiloid Canyon, 35-Mile Canyon and 36-Mile Canyon .....	191
16: 36.7-Mile Canyon.....	197
17: Tatahatso Wash .....	203
18: Buck Farm Canyon.....	209
19: Tatahoysa Wash .....	215
20: Saddle Canyon.....	219
21: Little Colorado River Gorge Tributaries.....	225
22: Little Colorado River Gorge.....	238

## 7 Central Grand Canyon

**243**

23: Lava and Carbon Canyons.....	249
24: Papago Creek.....	253
25: Hance Creek .....	259
26: Cottonwood Creek.....	263
27: Vishnu Creek .....	267
28: Grapevine Creek .....	271
29: Clear Creek Loop.....	275
30: Ribbon Falls.....	279
31: Cremation Creek, Lonetree Canyon and Boulder Creek.....	283
32: Phantom Creek .....	289
33: Pipe Creek.....	295
34: Garden Creek.....	299
35: Horn Creek .....	303
36: Trinity Creek.....	307
37: Salt Creek .....	313
38: Monument Creek .....	317
39: Hermit Creek .....	321
40: Big Spring Canyon .....	325
41: Muav Canyon (aka: White Creek).....	331
42: Royal Arch Creek .....	335
43: Blacktail Canyon .....	341
44: Crazy Jug, Saddle and Stina Canyons .....	345
45: Stone Creek.....	353
46: Tapeats Cave Canyon .....	359
47: Bonita Creek .....	363
48: Deer Creek (upper).....	367
49: Deer Creek (lower).....	375
50: Cranberry and Fishtail Canyons .....	381

## 8 Western Grand Canyon 389

51: Kanab Creek .....	393
52: Kanab Creek - Eastern Tributaries.....	401
53: Kanab Creek - Western Tributaries.....	411
54: Olo Canyon.....	419
55: Matkatamiba and Panameta Canyons.....	423
56: 150-Mile and North Spring Canyons.....	429
57: Havasu Creek.....	437
58: Cork Spring Canyon .....	441
59: Pocket Point Canyon .....	447
60: Tuckup Canyon and Tributaries.....	453
61: Willow and Fern Glen Canyons.....	461
62: Cove Canyon .....	469
63: Surprise Canyon Tributaries .....	477
64: Burnt and Tincanebitts Canyons.....	483
Appendix A: Grand Canyon and Canyoneering Resources .....	489
Appendix B: ACA Canyon Rating System .....	492
Index .....	494
About the Author.....	500



*Kaibab Plateau in winter*